

#01#

Artículos originales (todos) *** Original articles (all)

RESPIRATORY TRACT TUMORS

(Conceptos / Keywords: NSCLC; SCLC, Mesotheliomas; Tracheal tumors; Bronchial tumors; etc).

Julio - Agosto 2013 / July - August 2013

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[1]

TÍTULO / TITLE: - Risk of Lung Cancer Associated With Occupational Exposure to Mineral Wools: Updating Knowledge From a French Population-Based Case-Control Study, the ICARE Study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Occup Environ Med. 2013 Jul;55(7):786-795.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1097/JOM.0b013e318289ee8b](#)

AUTORES / AUTHORS: - Guida F; Paget-Bailly S; Lamkarkach F; Gaye O; Ducamp S; Menvielle G; Papadopoulos A; Matrat M; Fevotte J; Cenee S; Cyr D; Schmaus A; Carton M; Radoi L; Lapotre-Ledoux B; Molinie F; Luce D; Stucker I

INSTITUCIÓN / INSTITUTION: - From UMRS 1018, the Environmental Epidemiology of Cancer Team (Drs Guida, Papadopoulos, and Stucker, Ms Lamkarkach, Ms Gaye, and Ms Cenee) and Epidemiology of Occupational and Social Determinants of Health Team (Drs Paget-Bailly, Menvielle, Carton, Radoi, and Luce, Ms Cyr, and Ms Schmaus), the Inserm, CESP Centre for Research in Epidemiology and Population Health, Villejuif, France; University Paris-Sud, UMRS 1018 (Drs Guida, Papadopoulos, and Stucker, Ms Lamkarkach, Ms Gaye, and Ms Cenee), Villejuif, France; Inserms, CESP Centre for Research in Epidemiology and Population Health, UMRS 1018,

Epidemiology of Occupational and Social Determinants of Health Team (Drs Paget-Bailly, Menvielle, Carton, Radoi, and Luce, Ms Cyr, and Ms Schmaus), Villejuif, France; University of Versailles St-Quentin, UMRS 1018 (Drs Paget-Bailly, Menvielle, Carton, Radoi, and Luce, Ms Cyr, and Ms Schmaus), Villejuif, France; Departement Sante Travail (Ms Ducamp), Institut de Veille Sanitaire, Saint Maurice, France; Equipe Associee en Sante Travail- Essat (Ms Ducamp), Laboratoire Sante, travail, environnement (Equipe d'acueil EA 3672), Institut de Sante Publique d'Epidemiologie et de Developpement, Bordeaux, France; Inserm, U955 (Dr Matrat), Faculty of medicine (Dr Matrat), University Paris Est-Creteil Faculty of medicine, Institut Federatif de recherche IFR 10, and Centre Hospitalier Intercommunal (Dr Matrat), service de Pneumologie et de Pathologie Professionnelle, Creteil, France; Unite mixte de recherche epidemiologique et de surveillance en transport, travail et environnement (Ms Fevotte), University Claude Bernard, Lyon 1, France; Somme Cancer Registry (Dr Lapotre-Ledoux), Amiens, France; and Loire-Atlantique et Vendee Cancer Registry (Dr Molinie), Nantes, France.

RESUMEN / SUMMARY: - OBJECTIVES:: To assess the risk of lung cancer associated with exposure to mineral wools (MWs), while taking into account smoking, asbestos, and crystalline silica exposures. METHODS:: The analyses were restricted to men (1350 cases and 1912 controls). Lifelong occupational history was collected. MWs and asbestos exposures were assessed, using task-exposure matrices and silica exposure, a job-exposure matrix. RESULTS:: We observed consistent not-significant increased risks of lung cancer of the same order of magnitude among workers exposed to high levels of MWs (odds ratio, 1.4; 95% confidence interval: 0.9 to 2.2; for highest quartile of the Cumulative Exposure Index). CONCLUSIONS:: These results do not allow to draw firm conclusion about a carcinogenic effect of MWs on the lung, but they cannot exclude it. Given the high number of potentially exposed workers, it will be necessary to replicate them in a future further removed from the asbestos ban.

TÍTULO / TITLE: - Comparison of x-ray films and low-dose computed tomographic scans: demonstration of asbestos-related changes in 2760 nuclear weapons workers screened for lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Occup Environ Med. 2013 Jul;55(7):741-5. doi: 10.1097/JOM.0b013e3182954067.

●● Enlace al texto completo (gratis o de pago)

[1097/JOM.0b013e3182954067](#)

AUTORES / AUTHORS: - Miller A; Widman SA; Miller JA; Manowitz A; Markowitz SB

INSTITUCIÓN / INSTITUTION: - From the Center for the Biology of Natural Systems (Drs A Miller, JA Miller, and Markowitz, Ms Widman, and Ms Manowitz),

Queens College, City University of New York, Flushing; Albert Einstein College of Medicine (Dr A Miller), Bronx, NY; and Veterans Affairs Hospital (Dr JA Miller), East Orange, NJ.

RESUMEN / SUMMARY: - OBJECTIVE: Increased availability and technical improvements of computed tomographic (CT) scanning encourages its use for detecting asbestos-related disease. We compared low-dose scans and x-ray films in 2760 workers potentially exposed to asbestos, to assess their ability to detect interstitial lung disease (ILD) and pleural thickening (PT). METHODS: A total of 2760 nuclear workers received radiography and CT scanning (2006 to 2009). X-ray films were read by a B reader for ILD and PT and CT scans by a thoracic radiologist, using a protocol for nodules, ILD, and PT. RESULTS: Of the 2760 workers, 271 showed circumscribed PT on CT scans, and 73 on x-ray films, 54 (74%) of which were confirmed on CT scans; 76 showed ILD on CT scans, and 15 on x-ray film, 10 (67%) of which were confirmed on CT scans. CONCLUSIONS: Radiographic readings of PT and ILD were generally confirmed on CT scans. Computed tomographic scans detected three to five times more cases; the majority were minor.

[2]

TÍTULO / TITLE: - Extra-thoracic tumor burden but not thoracic tumor burden on (18)F-FDG PET/CT is an independent prognostic biomarker for extensive-disease small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Aug;81(2):218-25. doi: 10.1016/j.lungcan.2013.05.001. Epub 2013 May 31.

●● Enlace al texto completo (gratis o de pago)

1016/j.lungcan.2013.05.001

AUTORES / AUTHORS: - Oh JR; Seo JH; Hong CM; Jeong SY; Lee SW; Lee J; Min JJ; Song HC; Bom HS; Kim YC; Ahn BC

INSTITUCIÓN / INSTITUTION: - Department of Nuclear Medicine, Kyungpook National University Hospital, Daegu, Republic of Korea.

RESUMEN / SUMMARY: - PURPOSE: The aim of this study was to evaluate the relationship and difference in prognostic significance between whole-body tumor burden, thoracic tumor burden, and extra-thoracic tumor burden on (18)F-FDG PET/CT for patients with extensive-disease small cell lung cancer (ED-SCLC). MATERIALS AND METHODS: We performed a retrospective, two-center analysis for patients with ED-SCLC who underwent pretreatment (18)F-FDG PET/CT. Metabolic tumor burden was estimated using whole-body metabolic tumor volume (MTVWB), thoracic metabolic tumor volume (MTVTRX), extra-thoracic metabolic tumor volume (MTVEXT), and the number of extra-thoracic tumor foci. Uni- and multivariate analyses were performed using various clinical factors and the metabolic indices. RESULTS: A total of 91 patients were eligible for this study. MTVWB showed stronger correlation with

MTVEXT than MTVTRX ($r(2)=0.804$ vs. 0.132 , $p<0.001$, both), whereas no correlation was observed between MTVEXT and MTVTRX ($r(2)=0.007$, $p=0.428$). Patients with smaller MTVWB, MTVEXT, and extra-thoracic tumor foci showed longer survival than patients with larger MTVWB, MTVEXT, and extra-thoracic tumor foci, respectively, whereas the survival difference between patients with smaller MTVTRX and those with larger MTVTRX was not significant. Results of uni- and multivariate analyses showed that ECOG performance status ($HR=2.31$, $p=0.015$), initial chemotherapy cycles ($HR=0.24$, $p<0.001$), and the number of extra-thoracic tumor foci ($HR=2.75$, $p<0.001$) were independent prognostic factors for overall survival, and initial chemotherapy cycles ($HR=0.25$, $p<0.001$), and MTVEXT ($HR=2.04$, $p=0.013$) were independent prognostic factors for progression-free survival. CONCLUSION: These data provide evidence indicating that extra-thoracic tumor burden but not thoracic tumor burden is an independent prognostic biomarker for ED-SCLC, and support further exploration of novel treatment strategies targeting extra-thoracic tumor burden in order to improve the clinical outcomes of patients with ED-SCLC.

TÍTULO / TITLE: - A case of lung adenocarcinoma harboring exon 19 EGFR deletion and EML4-ALK fusion gene.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Aug;81(2):308-10. doi: 10.1016/j.lungcan.2013.05.003. Epub 2013 May 31.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1016/j.lungcan.2013.05.003](#)

AUTORES / AUTHORS: - Chen X; Zhang J; Hu Q; Li X; Zhou C

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Shanghai Pulmonary Hospital, Tongji University School of Medicine Tongji University Medical School Cancer Institute Tongji University, No 507 Zhengmin Road, Shanghai 200433, People's Republic of China.

RESUMEN / SUMMARY: - We report a man with advanced adenocarcinoma who harboring exon 19 (E746-A750del) epidermal growth factor receptor (EGFR) deletion and echinoderm microtubule-associated protein like 4-anaplastic lymphoma kinase (EML4-ALK) gene translocation in the re-biopsy specimen. The patient was treated with erlotinib with a stable disease but progressed slowly, while crizotinib showed a complete response.

[3]

TÍTULO / TITLE: - Crizotinib versus chemotherapy in advanced ALK-positive lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - N Engl J Med. 2013 Jun 20;368(25):2385-94. doi: 10.1056/NEJMoa1214886. Epub 2013 Jun 1.

●● Enlace al texto completo (gratis o de pago) [1056/NEJMoa1214886](https://doi.org/10.1056/NEJMoa1214886)

AUTORES / AUTHORS: - Shaw AT; Kim DW; Nakagawa K; Seto T; Crino L; Ahn MJ; De Pas T; Besse B; Solomon BJ; Blackhall F; Wu YL; Thomas M; O'Byrne KJ; Moro-Sibilot D; Camidge DR; Mok T; Hirsh V; Riely GJ; Iyer S; Tassell V; Polli A; Wilner KD; Janne PA

INSTITUCIÓN / INSTITUTION: - Massachusetts General Hospital, Boston, MA 02114, USA. ashaw1@partners.org

RESUMEN / SUMMARY: - **BACKGROUND:** In single-group studies, chromosomal rearrangements of the anaplastic lymphoma kinase gene (ALK) have been associated with marked clinical responses to crizotinib, an oral tyrosine kinase inhibitor targeting ALK. Whether crizotinib is superior to standard chemotherapy with respect to efficacy is unknown. **METHODS:** We conducted a phase 3, open-label trial comparing crizotinib with chemotherapy in 347 patients with locally advanced or metastatic ALK-positive lung cancer who had received one prior platinum-based regimen. Patients were randomly assigned to receive oral treatment with crizotinib (250 mg) twice daily or intravenous chemotherapy with either pemetrexed (500 mg per square meter of body-surface area) or docetaxel (75 mg per square meter) every 3 weeks. Patients in the chemotherapy group who had disease progression were permitted to cross over to crizotinib as part of a separate study. The primary end point was progression-free survival. **RESULTS:** The median progression-free survival was 7.7 months in the crizotinib group and 3.0 months in the chemotherapy group (hazard ratio for progression or death with crizotinib, 0.49; 95% confidence interval [CI], 0.37 to 0.64; $P < 0.001$). The response rates were 65% (95% CI, 58 to 72) with crizotinib, as compared with 20% (95% CI, 14 to 26) with chemotherapy ($P < 0.001$). An interim analysis of overall survival showed no significant improvement with crizotinib as compared with chemotherapy (hazard ratio for death in the crizotinib group, 1.02; 95% CI, 0.68 to 1.54; $P = 0.54$). Common adverse events associated with crizotinib were visual disorder, gastrointestinal side effects, and elevated liver aminotransferase levels, whereas common adverse events with chemotherapy were fatigue, alopecia, and dyspnea. Patients reported greater reductions in symptoms of lung cancer and greater improvement in global quality of life with crizotinib than with chemotherapy. **CONCLUSIONS:** Crizotinib is superior to standard chemotherapy in patients with previously treated, advanced non-small-cell lung cancer with ALK rearrangement. (Funded by Pfizer; ClinicalTrials.gov number, NCT00932893.).

[4]

TÍTULO / TITLE: - Randomized Phase III Trial of Single-Agent Pemetrexed Versus Carboplatin and Pemetrexed in Patients With Advanced Non-Small-Cell

Lung Cancer and Eastern Cooperative Oncology Group Performance Status of 2.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Aug 10;31(23):2849-53. doi: 10.1200/JCO.2012.48.1911. Epub 2013 Jun 17.

●● Enlace al texto completo (gratis o de pago)

[1200/JCO.2012.48.1911](#)

AUTORES / AUTHORS: - Zukin M; Barrios CH; Rodrigues Pereira J; De Albuquerque Ribeiro R; de Mendonca Beato CA; do Nascimento YN; Murad A; Franke FA; Precivale M; de Lima Araujo LH; Da Rocha Baldotto CS; Vieira FM; Small IA; Ferreira CG; Lilenbaum RC

INSTITUCIÓN / INSTITUTION: - Yale Cancer Center, 20 York St, New Haven, CT 06510; rogerio.lilenbaum@yale.edu.

RESUMEN / SUMMARY: - **PURPOSE** To compare single-agent pemetrexed (P) versus the combination of carboplatin and pemetrexed (CP) in first-line therapy for patients with advanced non-small-cell lung cancer (NSCLC) with an Eastern Cooperative Oncology Group (ECOG) performance status (PS) of 2. **PATIENTS AND METHODS** In a multicenter phase III randomized trial, patients with advanced NSCLC, ECOG PS of 2, any histology at first and later amended to nonsquamous only, no prior chemotherapy, and adequate organ function were randomly assigned to P alone (500 mg/m²) or CP (area under the curve of 5 and 500 mg/m², respectively) administered every 3 weeks for a total of four cycles. The primary end point was overall survival (OS). **Results** A total of 205 eligible patients were enrolled from eight centers in Brazil and one in the United States from April 2008 to July 2011. The response rates were 10.3% for P and 23.8% for CP (P = .032). In the intent-to-treat population, the median PFS was 2.8 months for P and 5.8 months for CP (hazard ratio [HR], 0.46; 95% CI, 0.35 to 0.63; P < .001), and the median OS was 5.3 months for P and 9.3 months for CP (HR, 0.62; 95% CI, 0.46 to 0.83; P = .001). One-year survival rates were 21.9% and 40.1%, respectively. Similar results were seen when patients with squamous disease were excluded from the analysis. Anemia (grade 3, 3.9%; grade 4, 11.7%) and neutropenia (grade 3, 1%; grade 4, 6.8%) were more frequent with CP. There were four treatment-related deaths in the CP arm. **CONCLUSION** Combination chemotherapy with CP significantly improves survival in patients with advanced NSCLC and ECOG PS of 2.

[5]

TÍTULO / TITLE: - LUX-Lung 4: A Phase II Trial of Afatinib in Patients With Advanced Non-Small-Cell Lung Cancer Who Progressed During Prior Treatment With Erlotinib, Gefitinib, or Both.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Jul 1.

●● Enlace al texto completo (gratis o de pago)

[1200/JCO.2012.45.0981](https://doi.org/10.1200/JCO.2012.45.0981)

AUTORES / AUTHORS: - Katakami N; Atagi S; Goto K; Hida T; Horai T; Inoue A; Ichinose Y; Koboyashi K; Takeda K; Kiura K; Nishio K; Seki Y; Ebisawa R; Shahidi M; Yamamoto N

INSTITUCIÓN / INSTITUTION: - Nobuyuki Katakami, Kobe City Medical Center General Hospital, Kobe; Shinji Atagi, National Hospital Organization Kinki-Chuo Chest Medical Center; Koji Takeda, Osaka City General Hospital; Kazuto Nishio, Kinki University, Osaka; Koichi Goto, National Cancer Center Hospital East, Chiba; Toyoaki Hida, Aichi Cancer Center Hospital, Nagoya; Takeshi Horai, The Cancer Institute Hospital of Japanese Foundation for Cancer Research, Tokyo; Akira Inoue, Tohoku University Hospital, Sendai; Yukito Ichinose, National Kyushu Cancer Center, Fukuoka; Kunihiro Koboyashi, Saitama International Medical Center, Saitama; Katsuyuki Kiura, Okayama University, Okayama; Yoko Seki and Ryuichi Ebisawa, Nippon Boehringer Ingelheim; Nobuyuki Yamamoto, Shizuoka Cancer Center, Shizuoka, Japan; and Mehdi Shahidi, Boehringer Ingelheim, Bracknell, United Kingdom.

RESUMEN / SUMMARY: - PURPOSE New molecular targeted agents are needed for patients with non-small-cell lung cancer (NSCLC) who progress while receiving erlotinib, gefitinib, or both. Afatinib, an oral irreversible ErbB family blocker, has preclinical activity in epidermal growth factor receptor (EGFR [ErbB1]) mutant models with EGFR-activating mutations, including T790M. Patients And methods This was a Japanese single-arm phase II trial conducted in patients with stage IIIB to IV pulmonary adenocarcinoma who progressed after \geq 12 weeks of prior erlotinib and/or gefitinib. Patients received afatinib 50 mg per day. The primary end point was objective response rate (complete response or partial response) by independent review. Secondary end points included progression-free survival (PFS), overall survival (OS), and safety. RESULTS: L858R + T790M, and deletion in exon 19 + T790M; they had stable disease for 9 months and 1 month, respectively. The most common afatinib-related adverse events (AEs) were diarrhea (100%) and rash/acne (91.9%). Treatment-related AEs leading to afatinib discontinuation were experienced by 18 patients (29%), of whom four also had progressive disease. CONCLUSION Afatinib demonstrated modest but noteworthy efficacy in patients with NSCLC who had received third- or fourth-line treatment and who progressed while receiving erlotinib and/or gefitinib, including those with acquired resistance to erlotinib, gefitinib, or both.

[6]

TÍTULO / TITLE: - Acquired resistance to crizotinib from a mutation in CD74-ROS1.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - N Engl J Med. 2013 Jun 20;368(25):2395-401. doi: 10.1056/NEJMoa1215530. Epub 2013 Jun 1.

●● Enlace al texto completo (gratis o de pago) [1056/NEJMoa1215530](https://doi.org/10.1056/NEJMoa1215530)

AUTORES / AUTHORS: - Awad MM; Katayama R; McTigue M; Liu W; Deng YL; Brooun A; Friboulet L; Huang D; Falk MD; Timofeevski S; Wilner KD; Lockerman EL; Khan TM; Mahmood S; Gainor JF; Digumarthy SR; Stone JR; Mino-Kenudson M; Christensen JG; Iafrate AJ; Engelman JA; Shaw AT

INSTITUCIÓN / INSTITUTION: - Department of Medicine, Massachusetts General Hospital Cancer Center, Boston, MA 02114, USA.

RESUMEN / SUMMARY: - Crizotinib, an inhibitor of anaplastic lymphoma kinase (ALK), has also recently shown efficacy in the treatment of lung cancers with ROS1 translocations. Resistance to crizotinib developed in a patient with metastatic lung adenocarcinoma harboring a CD74-ROS1 rearrangement who had initially shown a dramatic response to treatment. We performed a biopsy of a resistant tumor and identified an acquired mutation leading to a glycine-to-arginine substitution at codon 2032 in the ROS1 kinase domain. Although this mutation does not lie at the gatekeeper residue, it confers resistance to ROS1 kinase inhibition through steric interference with drug binding. The same resistance mutation was observed at all the metastatic sites that were examined at autopsy, suggesting that this mutation was an early event in the clonal evolution of resistance. (Funded by Pfizer and others; ClinicalTrials.gov number, NCT00585195.).

[7]

TÍTULO / TITLE: - Rationale for the design of an oncology trial using a generic targeted therapy multidrug regimen for NSCLC patients without treatment options (Review).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Rep. 2013 Jul 22. doi: 10.3892/or.2013.2631.

●● Enlace al texto completo (gratis o de pago) [3892/or.2013.2631](https://doi.org/10.3892/or.2013.2631)

AUTORES / AUTHORS: - Langhammer S

INSTITUCIÓN / INSTITUTION: - Life Science Consulting, Schloss Pesch, D40668 Meerbusch, Germany.

RESUMEN / SUMMARY: - Despite more than 70 years of research concerning medication for cancer treatment, the disease still remains one of the leading causes of mortality worldwide. Many cancer types lead to death within a period of months to years. The original class of chemotherapeutics is not selective for tumor cells and often has limited efficacy, while treated patients suffer from adverse sideeffects. To date, the concept of tumorspecific targeted therapy drugs has not fulfilled its expectation to provide a key for a cure. Today, many oncology trials are designed using a combination of chemotherapeutics with targeted therapy drugs. However, these approaches have limited outcomes in most cancer indications. This perspective review provides a rationale to

combine targeted therapy drugs for cancer treatment based on observations of evolutionary principles of tumor development and HIV infections. In both diseases, the mechanisms of immune evasion and drug resistance can be compared to some extent. However, only for HIV is a breakthrough treatment available, which is the highly active antiretroviral therapy (HAART). The principles of HAART and recent findings from cancer research were employed to construct a hypothetical model for cancer treatment with a multidrug regimen of targeted therapy drugs. As an example of this hypothesis, it is proposed to combine already marketed targeted therapy drugs against VEGFRs, EGFR, CXCR4 and COX2 in an oncology trial for nonsmall cell lung cancer patients without further treatment options.

[8]

TÍTULO / TITLE: - Feasibility trial for adjuvant chemotherapy with docetaxel plus cisplatin followed by single agent long-term administration of S-1 chemotherapy in patients with completely resected non-small cell lung cancer: Thoracic Oncology Research Group Study 0809.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Br J Cancer. 2013 Aug 6;109(3):545-51. doi: 10.1038/bjc.2013.378. Epub 2013 Jul 18.

●● Enlace al texto completo (gratis o de pago) [1038/bjc.2013.378](#)

AUTORES / AUTHORS: - Niho S; Ikeda N; Michimae H; Suzuki K; Sakai H; Kaburagi T; Minato K; Kato T; Okamoto H; Seto T; Hosomi Y; Shimizu K; Oshita F; Kunitoh H; Tsuboi M; Takeuchi M; Watanabe K

INSTITUCIÓN / INSTITUTION: - Division of Thoracic Oncology, National Cancer Center Hospital East, 6-5-1 Kashiwanoha, Kashiwa, Chiba 277-8577, Japan.

RESUMEN / SUMMARY: - Background: We conducted a multicentre feasibility study for single agent long-term S-1 chemotherapy following docetaxel plus cisplatin in patients with curatively resected stage II-IIIa non-small cell lung cancer. Methods: Patients received three cycles of docetaxel (60 mg m⁻²) plus cisplatin (80 mg m⁻²) and then received S-1 (40 mg m⁻²) twice daily for 14 consecutive days with a 1-week rest for >6 months (maximum, 1 year). The primary end point was feasibility, which was defined as the proportion of patients who completed eight or more cycles of S-1 chemotherapy. If the lower 95% confidence interval (CI) of this proportion was 50% or more, then the treatment was considered as feasible. The sample size was set at 125 patients. Results: One hundred and thirty-one patients were enrolled, of whom 129 patients were eligible and assessable. In all, 109 patients (84.5%) completed 3 cycles of docetaxel plus cisplatin and 66 patients (51.2%, 95% CI: 42.5-59.8) completed 8 or more cycles of S-1 treatment. Grade 3/4 toxicities during the S-1 chemotherapy included anaemia (7.3%), neutropaenia (3.7%), and anorexia (3.7%). Conclusion: The toxicity level was acceptable, although the

results did not meet our criterion for feasibility. Modification of the treatment schedule for S-1 chemotherapy might improve the treatment compliance.

[9]

TÍTULO / TITLE: - Targeting of low-dose CT screening according to the risk of lung-cancer death.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - N Engl J Med. 2013 Jul 18;369(3):245-54. doi: 10.1056/NEJMoa1301851.

●● Enlace al texto completo (gratis o de pago) [1056/NEJMoa1301851](#)

AUTORES / AUTHORS: - Kovalchik SA; Tammemagi M; Berg CD; Caporaso NE; Riley TL; Korch M; Silvestri GA; Chaturvedi AK; Katki HA

INSTITUCIÓN / INSTITUTION: - Division of Cancer Epidemiology and Genetics, National Cancer Institute, National Institutes of Health, and Information Management Services, Rockville, MD, USA.

RESUMEN / SUMMARY: - BACKGROUND: In the National Lung Screening Trial (NLST), screening with low-dose computed tomography (CT) resulted in a 20% reduction in lung-cancer mortality among participants between the ages of 55 and 74 years with a minimum of 30 pack-years of smoking and no more than 15 years since quitting. It is not known whether the benefits and potential harms of such screening vary according to lung-cancer risk. METHODS: We assessed the variation in efficacy, the number of false positive results, and the number of lung-cancer deaths prevented among 26,604 participants in the NLST who underwent low-dose CT screening, as compared with the 26,554 participants who underwent chest radiography, according to the quintile of 5-year risk of lung-cancer death (ranging from 0.15 to 0.55% in the lowest-risk group [quintile 1] to more than 2.00% in the highest-risk group [quintile 5]). RESULTS: The number of lung-cancer deaths per 10,000 person-years that were prevented in the CT-screening group, as compared with the radiography group, increased according to risk quintile (0.2 in quintile 1, 3.5 in quintile 2, 5.1 in quintile 3, 11.0 in quintile 4, and 12.0 in quintile 5; P=0.01 for trend). Across risk quintiles, there were significant decreasing trends in the number of participants with false positive results per screening-prevented lung-cancer death (1648 in quintile 1, 181 in quintile 2, 147 in quintile 3, 64 in quintile 4, and 65 in quintile 5). The 60% of participants at highest risk for lung-cancer death (quintiles 3 through 5) accounted for 88% of the screening-prevented lung-cancer deaths and for 64% of participants with false positive results. The 20% of participants at lowest risk (quintile 1) accounted for only 1% of prevented lung-cancer deaths. CONCLUSIONS: Screening with low-dose CT prevented the greatest number of deaths from lung cancer among participants who were at highest risk and prevented very few deaths among those at lowest risk. These findings provide empirical support for risk-based targeting of smokers for such screening. (Funded by the National Cancer Institute.)

[10]

TÍTULO / TITLE: - A randomised trial comparing preoperative to perioperative chemotherapy in early-stage non-small-cell lung cancer (IFCT 0002 trial).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cancer. 2013 Aug;49(12):2654-64. doi: 10.1016/j.ejca.2013.04.013. Epub 2013 Jun 1.

●● [Enlace al texto completo \(gratis o de pago\) 1016/j.ejca.2013.04.013](#)

AUTORES / AUTHORS: - Westeel V; Quoix E; Puyraveau M; Lavole A; Braun D; Laporte S; Bigay-Game L; Pujol JL; Ozenne G; Riviere A; Douillard JY; Lebeau B; Debieuvre D; Poudenx M; David P; Molinier O; Zalcman G; Lemarie E; Morin F; Depierre A; Milleron B

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RESUMEN / SUMMARY: - **HYPOTHESIS:** There will be a detectable increase in overall survival (OS) using preoperative (PRE) as opposed to perioperative (PERI) chemotherapy in resectable Stage-II non-small-cell lung cancer (NSCLC). **METHODS:** This multicenter, open-label, randomised trial with a 2x2 factorial design first compared two chemotherapy strategies (PRE versus PERI), then two chemotherapy regimens (gemcitabine-cisplatin [GP] versus paclitaxel-carboplatin [TC]). The PRE group received two preoperative cycles followed by two additional preoperative cycles, while the PERI group underwent two preoperative cycles followed by two postoperative cycles, the 3rd and 4th cycles being given only to responders in both cases. **RESULTS:** A total of 528 patients were randomised, 267 of which were assigned to the PRE group and 261 to the PERI group. Three-year OS did not differ between the two groups (67.4% and 67.7%, respectively; hazard ratio (HR)=1.01 [0.79-1.30], p=0.92), nor did 3-year disease-free survival, response rates, toxicity, or postoperative mortality. Pathological complete response was observed in 22 (8.2%) and 16 patients (6.1%), respectively. Although quality of life did not differ significantly, chemotherapy compliance was significantly higher in the PRE group. The proportion of responders who received Cycles 3 and 4 was significantly higher in the PRE group (90.4% versus 75.2%, p=0.001). In responders, the dose intensity of Cycles 3 and 4 was higher in the PRE group than in the PERI group (mean relative dose intensity of 90.4% versus 82.6%, respectively; p=0.0007). There was no difference between GP and TC in 3-year OS (HR=0.97 [95% confidence interval (CI): 0.76-1.25], p=0.80) or response rates. However, the regimens' toxicity profiles differed. **CONCLUSIONS:** This study failed to demonstrate any difference in survival between patients receiving preoperative and perioperative chemotherapy in early-stage NSCLC. The increase from two to four preoperative chemotherapy cycles did not increase the pathological response rate.

[11]

TÍTULO / TITLE: - Randomized Phase III Trial of Maintenance Bevacizumab With or Without Pemetrexed After First-Line Induction With Bevacizumab, Cisplatin, and Pemetrexed in Advanced Nonsquamous Non-Small-Cell Lung Cancer: AVAPERL (MO22089).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Jul 8.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1200/JCO.2012.42.3749](#)

AUTORES / AUTHORS: - Barlesi F; Scherpereel A; Rittmeyer A; Pazzola A; Ferrer Tur N; Kim JH; Ahn MJ; Aerts JG; Gorbunova V; Vikstrom A; Wong EK; Perez-Moreno P; Mitchell L; Groen HJ

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RESUMEN / SUMMARY: - PURPOSE Maintenance therapy is associated with improved survival in patients with non-small-cell lung cancer (NSCLC), but few studies have compared active agents in this setting. AVAPERL evaluated the safety and efficacy of bevacizumab with or without pemetrexed as continuation maintenance treatment. PATIENTS AND METHODS Patients with advanced nonsquamous NSCLC received first-line bevacizumab 7.5 mg/kg, cisplatin 75 mg/m², and pemetrexed 500 mg/m² once every 3 weeks for four cycles. Those achieving response or stable disease were randomly assigned at a ratio of 1:1 to maintenance bevacizumab 7.5 mg/kg or bevacizumab 7.5 mg/kg plus pemetrexed 500 mg/m² once every 3 weeks until disease progression or unacceptable toxicity. The primary end point was progression-free survival (PFS) after random assignment. Results In total, 376 patients received induction treatment, 71.9% achieved disease control, and 67.3% were randomly assigned to maintenance therapy, with 125 and 128 receiving single-agent bevacizumab and bevacizumab plus pemetrexed treatment, respectively. At a median follow-up of 8.1 months, PFS from random assignment was significantly improved in

the bevacizumab plus pemetrexed arm (median, 3.7 v 7.4 months; hazard ratio, 0.48; 95% CI, 0.35 to 0.66; P < .001) per a stratified model. The PFS benefit extended across age, performance status, smoking history, and induction response (stable disease v partial response) subgroups. Any grade, grade \geq 3, and serious adverse events occurred more often with bevacizumab plus pemetrexed maintenance. No new safety signals were observed.

CONCLUSIONIn an unselected population of patients with nonsquamous NSCLC who had achieved disease control with platinum-based chemotherapy plus bevacizumab, bevacizumab plus pemetrexed maintenance was associated with a significant PFS benefit compared with bevacizumab alone. The combination was well tolerated.

[12]

TÍTULO / TITLE: - Thymidylate synthase expression and outcome of patients receiving pemetrexed for advanced nonsquamous non-small-cell lung cancer in a prospective blinded assessment phase II clinical trial.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Jul;8(7):930-9. doi: 10.1097/JTO.0b013e318292c500.

●● Enlace al texto completo (gratis o de pago)

1097/JTO.0b013e318292c500

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RESUMEN / SUMMARY: - **INTRODUCTION:** In retrospective analyses of patients with nonsquamous non-small-cell lung cancer treated with pemetrexed, low thymidylate synthase (TS) expression is associated with better clinical outcomes. This phase II study explored this association prospectively at the protein and mRNA-expression level. **METHODS:** Treatment-naive patients with nonsquamous non-small-cell lung cancer (stage IIIB/IV) had four cycles of first-line chemotherapy with pemetrexed/cisplatin. Nonprogressing patients continued on pemetrexed maintenance until progression or maximum tolerability. TS expression (nucleus/cytoplasm/total) was assessed in diagnostic tissue samples by immunohistochemistry (IHC; H-scores), and quantitative reverse-transcriptase polymerase chain reaction. Cox regression was used to assess the association between H-scores and progression-free/overall survival (PFS/OS) distribution estimated by the Kaplan-Meier method. Maximal chi(2) analysis identified optimal cutpoints between low TS- and high TS-expression groups, yielding maximal associations with PFS/OS. **RESULTS:** The study enrolled 70 patients; of these 43 (61.4%) started maintenance treatment. In 60 patients with valid H-scores, median (m) PFS was 5.5 (95% confidence interval

[CI], 3.9-6.9) months, mOS was 9.6 (95% CI, 7.3-15.7) months. Higher nuclear TS expression was significantly associated with shorter PFS and OS (primary analysis IHC, PFS: $p < 0.0001$; hazard ratio per 1-unit increase: 1.015; 95%CI, 1.008-1.021). At the optimal cutpoint of nuclear H-score (70), mPFS in the low TS- versus high TS-expression groups was 7.1 (5.7-8.3) versus 2.6 (1.3-4.1) months ($p = 0.0015$; hazard ratio = 0.28; 95%CI, 0.16-0.52; $n = 40/20$). Trends were similar for cytoplasm H-scores, quantitative reverse-transcriptase polymerase chain reaction and other clinical endpoints (OS, response, and disease control). CONCLUSIONS: The primary endpoint was met; low TS expression was associated with longer PFS. Further randomized studies are needed to explore nuclear TS IHC expression as a potential biomarker of clinical outcomes for pemetrexed treatment in larger patient cohorts.

[13]

TÍTULO / TITLE: - Body Mass Index and Its Association with Clinical Outcomes for Advanced Non-Small-Cell Lung Cancer Patients Enrolled on Eastern Cooperative Oncology Group Clinical Trials.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Jul 24.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e31829cf942](#)

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RESUMEN / SUMMARY: - INTRODUCTION:: Obesity increases the risk of death from many adverse health outcomes and has also been linked with cancer outcomes. The impact of obesity on outcomes of advanced non-small-cell lung cancer patients is unclear. METHODS:: The authors evaluated the association of body mass index (BMI) and outcomes in 2585 eligible patients enrolled in three consecutive first-line trials conducted by the Eastern Cooperative Oncology Group. BMI was categorized as underweight (BMI < 18.5 kg/m), normal weight (BMI: 18.5 to < 25 kg/m), overweight (BMI: 25 to < 30 kg/m), and obese (BMI ≥ 30 kg/m). In addition to analyzing overall and progression-free

survival, reasons for treatment discontinuation were also assessed by BMI group. RESULTS:: Of the patients enrolled, 4.6% were underweight, 44.1% were normal weight, 34.3% of patients were classified as overweight, and 16.9% were obese. Nonproportional hazards existed for obese patients relative to the other three groups of patients, with a change in overall survival hazard occurring at approximately 16 months. In multivariable Cox models, obese patients had superior outcomes earlier on study compared with normal/overweight patients 0.86 (HR=0.86, p=0.04; 95% CI: 0.75-0.99), but later experienced increased hazard (HR=1.54, p< 0.001; 95% CI: 1.22-1.94), indicating a time effect while undergoing treatment. CONCLUSION:: Data from these three trials suggest differential outcomes associated with BMI, and additional studies of the mechanisms underlying this observation, as well as dietary and lifestyle interventions, are warranted to help optimize therapy.

[14]

TÍTULO / TITLE: - Phase II study of first-line bortezomib and cisplatin in malignant pleural mesothelioma and prospective validation of progression free survival rate as a primary end-point for mesothelioma clinical trials (European Organisation for Research and Treatment of Cancer 08052).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cancer. 2013 Sep;49(13):2815-22. doi: 10.1016/j.ejca.2013.05.008. Epub 2013 Jun 20.

●● Enlace al texto completo (gratis o de pago) [1016/j.ejca.2013.05.008](#)

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RESUMEN / SUMMARY: - BACKGROUND: This was a prospective phase II study of cisplatin and bortezomib (CB) in the first line treatment of malignant pleural mesothelioma (MPM) with validation of progression free survival rate at 18weeks (PFSR-18)(1) as primary end-point. METHODS: Chemotherapy-naive patients with histologically proven MPM and performance status (PS) 0/1, were treated with cisplatin 75mg/m² on day 1 and bortezomib 1.3mg/m² on days 1, 4, 8, 11 every 3weeks. The primary end-point validation utilised the landmark method. RESULTS: Between 2007 and 2010 82 patients were entered. PFSR-18 was 53% (80% confidence intervals, CIs, 42-64%). The overall survival (OS) was 13.5months (95% CI 10.5-15) with 56% (95% CI 44-66%) alive at 1year. The median PFS was 5.1months (95% CI 3.3-6.5) and the response rate was 28.4% (95% CI 18.9-39.5%). The most frequent grade 3-4 toxicities were hyponatremia (46%), hypokalaemia (17%), fatigue (12.2%), thrombocytopenia (11%), neutropenia (9.7%) and neurotoxicity (motor, sensory, other: 1.2%,

8.5%, 2.4%). There were two toxic deaths (32 and 74days) due to acute pneumonitis and cardiac arrest. End-point validation showed that patients with no progression/progression at 18weeks had median OS of 16.9/11.9months, respectively. Hazard ratio was 0.46 (CI 0.32-0.67), logrank test and C-index were 0.007 and 0.60. CONCLUSION: The 50% PFSR-18 for CB was contained within the 80% CI for (42-64%). Therefore the null hypothesis could not be rejected. Accordingly this combination does not warrant further investigation. PFSR-18 was confirmed as a strong predictor of survival.

[15]

TÍTULO / TITLE: - Erlotinib versus docetaxel as second-line treatment of patients with advanced non-small-cell lung cancer and wild-type EGFR tumours (TAILOR): a randomised controlled trial.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lancet Oncol. 2013 Jul 19. pii: S1470-2045(13)70310-3. doi: 10.1016/S1470-2045(13)70310-3.

●● Enlace al texto completo (gratis o de pago) [1016/S1470-2045\(13\)70310-3](#)

AUTORES / AUTHORS: - Garassino MC; Martelli O; Broggin M; Farina G; Veronese S; Rulli E; Bianchi F; Bettini A; Longo F; Moscetti L; Tomirotti M; Marabese M; Ganzinelli M; Lauricella C; Labianca R; Floriani I; Giaccone G; Torri V; Scanni A; Marsoni S

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RESUMEN / SUMMARY: - BACKGROUND: Erlotinib is registered for treatment of all patients with advanced non-small-cell lung cancer (NSCLC). However, its efficacy for treatment of patients whose tumours are EGFR wild-type-which includes most patients-is still contentious. We assessed the efficacy of erlotinib compared with a standard second-line chemotherapy in such patients. METHODS: We did this randomised controlled trial in 52 Italian hospitals. We enrolled patients who had metastatic NSCLC, had had platinum-based chemotherapy, and had wild-type EGFR as assessed by direct sequencing. Patients were randomly assigned centrally (1:1) to receive either erlotinib orally 150 mg/day or docetaxel intravenously 75 mg/m² every 21 days or 35 mg/m² on days 1, 8, and 15, every 28 days. Randomisation was stratified by centre, stage, type of first-line chemotherapy, and performance status. Patients and investigators who gave treatments or assessed outcomes were not masked to treatment allocation, investigators who analysed results were. The primary endpoint was overall survival in the intention-to-treat population. The study is registered at ClinicalTrials.gov, number NCT00637910. FINDINGS: We screened 702 patients, of whom we genotyped 540. 222 patients were enrolled (110 assigned to docetaxel vs 112 assigned to erlotinib). Median overall

survival was 8.2 months (95% CI 5.8-10.9) with docetaxel versus 5.4 months (4.5-6.8) with erlotinib (adjusted hazard ratio [HR] 0.73, 95% CI 0.53-1.00; p=0.05). Progression-free survival was significantly better with docetaxel than with erlotinib: median progression-free survival was 2.9 months (95% CI 2.4-3.8) with docetaxel versus 2.4 months (2.1-2.6) with erlotinib (adjusted HR 0.71, 95% CI 0.53-0.95; p=0.02). The most common grade 3-4 toxic effects were: low absolute neutrophil count (21 [20%] of 104 in the docetaxel group vs none of 107 in the erlotinib group), skin toxic effects (none vs 15 [14%]), and asthenia (ten [10%] vs six [6%]). INTERPRETATION: Our results show that chemotherapy is more effective than erlotinib for second-line treatment for previously treated patients with NSCLC who have wild-type EGFR tumours. FUNDING: Agenzia Italiana del Farmaco.

[16]

TÍTULO / TITLE: - Identification of metastatic nodal disease in a phase 1 dose-escalation trial of intraoperative sentinel lymph node mapping in non-small cell lung cancer using near-infrared imaging.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Cardiovasc Surg. 2013 Jun 18. pii: S0022-5223(13)00455-8. doi: 10.1016/j.jtcvs.2013.04.010.

●● [Enlace al texto completo \(gratis o de pago\)](#)

1016/j.jtcvs.2013.04.010

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RESUMEN / SUMMARY: - OBJECTIVES: Early-stage non-small cell lung cancer (NSCLC) has a high recurrence rate and poor 5-year survival, particularly if lymph nodes are involved. Our objective was to perform a dose-escalation study to assess safety and feasibility of intraoperative near-infrared (NIR) fluorescence imaging to identify the first tumor-draining lymph nodes (ie, sentinel lymph nodes [SLNs] in patients with NSCLC). METHODS: A-dose escalation phase 1 clinical trial assessing real-time NIR imaging after peritumoral injection of 3.8 to 2500 mug indocyanine green (ICG) was initiated in patients with suspected stage I/II NSCLC. Visualization of lymphatic migration, SLN identification, and adverse events were recorded. RESULTS: Thirty-eight patients underwent ICG injection and NIR imaging via thoracotomy (n = 18) or thoracoscopic imaging (n = 20). SLN identification increased with ICG dose, with fewer than 25% SLNs detected in dose cohorts of 600 mug or less versus 89% success at 1000 mug or greater. Twenty-six NIR+ SLNs were identified in 15 patients, with 7 NIR+ SLNs (6 patients) harboring metastatic disease on histologic analysis. Metastatic nodal disease was never identified in

patients with a histologically negative NIR+ SLN. No adverse reactions were noted. CONCLUSIONS: NIR-guided SLN identification with ICG was safe and feasible in this initial dose-escalation trial. ICG doses greater than 1000 mug yielded nearly 90% intrathoracic SLN visualization, with the presence or absence of metastatic disease in the SLN directly correlating with final nodal status of the lymphadenectomy specimen. Further studies are needed to optimize imaging parameters and confirm sensitivity and specificity of SLN mapping in NSCLC using this promising imaging technique.

PTPTPTP - JOURNAL ARTICLE ----- [17]

TÍTULO / TITLE: - Symptom Control and Quality of Life in LUX-Lung 3: A Phase III Study of Afatinib or Cisplatin/Pemetrexed in Patients With Advanced Lung Adenocarcinoma With EGFR Mutations.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Jul 1.

●● Enlace al texto completo (gratis o de pago)

[1200/JCO.2012.46.1764](#)

AUTORES / AUTHORS: - Yang JC; Hirsh V; Schuler M; Yamamoto N; O'Byrne KJ; Mok TS; Zazulina V; Shahidi M; Lungershausen J; Massey D; Palmer M; Sequist LV

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RESUMEN / SUMMARY: - PURPOSE Patient-reported symptoms and health-related quality of life (QoL) benefits were investigated in a randomized, phase III trial of afatinib or cisplatin/pemetrexed. PATIENTS AND METHODS Three hundred forty-five patients with advanced epidermal growth factor receptor (EGFR) mutation-positive lung adenocarcinoma were randomly assigned 2:1 to afatinib 40 mg per day or up to six cycles of cisplatin/pemetrexed. Lung cancer symptoms and health-related QoL were assessed every 21 days until progression using the European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire C30 and Lung Cancer-13 questionnaires. Analyses of cough, dyspnea, and pain were preplanned, including percentage of patients who improved on therapy, time to deterioration of symptoms, and change in symptoms over time. Results Questionnaire compliance was high. Compared with chemotherapy, afatinib significantly delayed the time to

deterioration for cough (hazard ratio [HR], 0.60; 95% CI, 0.41 to 0.87; P = .007) and dyspnea (HR, 0.68; 95% CI, 0.50 to 0.93; P = .015), but not pain (HR, 0.83; 95% CI, 0.62 to 1.10; P = .19). More patients on afatinib (64%) versus chemotherapy (50%) experienced improvements in dyspnea scores (P = .010). Differences in mean scores over time significantly favored afatinib over chemotherapy for cough (P < .001) and dyspnea (P < .001). Afatinib showed significantly better mean scores over time in global health status/QoL (P = .015) and physical (P < .001), role (P = .004), and cognitive (P = .007) functioning compared with chemotherapy. Fatigue and nausea were worse with chemotherapy, whereas diarrhea, dysphagia, and sore mouth were worse with afatinib (all P < .01). **CONCLUSION**In patients with lung adenocarcinoma with EGFR mutations, first-line afatinib was associated with better control of cough and dyspnea compared with chemotherapy, although diarrhea, dysphagia, and sore mouth were worse. Global health status/QoL was also improved over time with afatinib compared with chemotherapy.

[18]

TÍTULO / TITLE: - Phase III Study of Afatinib or Cisplatin Plus Pemetrexed in Patients With Metastatic Lung Adenocarcinoma With EGFR Mutations.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Jul 1.

●● Enlace al texto completo (gratis o de pago)

[1200/JCO.2012.44.2806](#)

AUTORES / AUTHORS: - Sequist LV; Yang JC; Yamamoto N; O'Byrne K; Hirsh V; Mok T; Geater SL; Orlov S; Tsai CM; Boyer M; Su WC; Bennouna J; Kato T; Gorbunova V; Lee KH; Shah R; Massey D; Zazulina V; Shahidi M; Schuler M

INSTITUCIÓN / INSTITUTION: - Lecia V. Sequist, Massachusetts General Hospital and Harvard Medical School, Boston, MA; James Chih-Hsin Yang, National Taiwan University Hospital; Chun-Ming Tsai, Taipei Veterans General Hospital, Taipei; Wu-Chou Su, National Cheng Kung University Hospital, Tainan, Taiwan; Nobuyuki Yamamoto, Shizuoka Cancer Center, Shizuoka; Terufumi Kato, Kanagawa Cardiovascular and Respiratory Center, Yokohama, Japan; Kenneth O'Byrne, St James' Hospital, Dublin, Ireland; Vera Hirsh, McGill University, Montreal, Quebec, Canada; Tony Mok, Prince of Wales Hospital, Hong Kong, China; Sarayut Lucien Geater, Songklanagarind Hospital, Songkla, Thailand; Sergey Orlov, Pavlov State Medical University, St Petersburg; Vera Gorbunova, GU Russian Oncological Research Centre, Moscow, Russia; Michael Boyer, Royal Prince Alfred Hospital, Camperdown, New South Wales, Australia; Jaafar Bennouna, Institut de Cancerologie de l'Ouest-site Rene Gauducheau, Nantes, France; Ki Hyeong Lee, Chungbuk National University Hospital, Cheongju, South Korea; Riyaz Shah, Maidstone and Tunbridge Wells National Health Service Trust, Maidstone Hospital, Maidstone; Dan Massey, Victoria Zazulina, and Mehdi Shahidi, Boehringer Ingelheim, Bracknell, United

Kingdom; and Martin Schuler, West German Cancer Center, University of Duisburg-Essen, Essen, Germany.

RESUMEN / SUMMARY: - PURPOSE The LUX-Lung 3 study investigated the efficacy of chemotherapy compared with afatinib, a selective, orally bioavailable ErbB family blocker that irreversibly blocks signaling from epidermal growth factor receptor (EGFR/ErbB1), human epidermal growth factor receptor 2 (HER2/ErbB2), and ErbB4 and has wide-spectrum preclinical activity against EGFR mutations. A phase II study of afatinib in EGFR mutation-positive lung adenocarcinoma demonstrated high response rates and progression-free survival (PFS). PATIENTS AND METHODS In this phase III study, eligible patients with stage IIIB/IV lung adenocarcinoma were screened for EGFR mutations. Mutation-positive patients were stratified by mutation type (exon 19 deletion, L858R, or other) and race (Asian or non-Asian) before two-to-one random assignment to 40 mg afatinib per day or up to six cycles of cisplatin plus pemetrexed chemotherapy at standard doses every 21 days. The primary end point was PFS by independent review. Secondary end points included tumor response, overall survival, adverse events, and patient-reported outcomes (PROs). Results A total of 1,269 patients were screened, and 345 were randomly assigned to treatment. Median PFS was 11.1 months for afatinib and 6.9 months for chemotherapy (hazard ratio [HR], 0.58; 95% CI, 0.43 to 0.78; P = .001). Median PFS among those with exon 19 deletions and L858R EGFR mutations (n = 308) was 13.6 months for afatinib and 6.9 months for chemotherapy (HR, 0.47; 95% CI, 0.34 to 0.65; P = .001). The most common treatment-related adverse events were diarrhea, rash/acne, and stomatitis for afatinib and nausea, fatigue, and decreased appetite for chemotherapy. PROs favored afatinib, with better control of cough, dyspnea, and pain. CONCLUSION Afatinib is associated with prolongation of PFS when compared with standard doublet chemotherapy in patients with advanced lung adenocarcinoma and EGFR mutations.

[19]

TÍTULO / TITLE: - Sunitinib malate in previously untreated, nonsquamous, non-small cell lung cancer patients over the age of 70 years: Results of a Phase II trial.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Invest New Drugs. 2013 Jun 13.

●● Enlace al texto completo (gratis o de pago) 1007/s10637-013-9985-0

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RESUMEN / SUMMARY: - Background Some elderly patients may have reduced tolerance the standard therapy (chemotherapy doublets) for stage III/IV non-small cell lung cancer (NSCLC). Sunitinib malate (S), an oral, multitargeted kinase inhibitor, shows promise as 2nd-line NSCLC treatment. This study explored the safety/efficacy of S in elderly patients with previously untreated NSCLC. Methods Primary objective: disease control rate (DCR) at six-weeks. Secondary objectives: overall response (OR, CR+PR), progression-free survival (PFS), time to progression (TTP), one-yr survival, quality of life (QOL), and safety. Treatment: S 37.5 mg daily/42-day cycle until PD or intolerable toxicity. Key inclusion: chemo-naïve stage IIIB/IV NSCLC (nonsquamous histology); ECOG PS = 0-1; >=70 years; normal organ function. Exclusion: hemoptysis, anticoagulation, or clotting diathesis. Other standard S-specific criteria applied. Results 63 patients enrolled/60 treated. Demographics: 51 % male, 95 % white, median age 78 years (range, 70-88), 73 % ECOG = 1, 97 % Stage IV, 83 % adenocarcinoma, 44 % prior surgery, 19 % prior radiation. With a median of 2 cycles (range, 1-16), DCR = 63 %, OR = 7 % (0 CR, 4 PR). Median follow-up = 5.8 months (all; 15.9 months survivors), median PFS = 3.0 months (range, <1-25.1), median TTP = 4.5 months (range, <1-25.1), and 1-year survival = 26.4 % [95 % CI: 15.9, 38.2]. QOL declined initially, but improved over time. Treatment-related adverse events included: fatigue (48.3 %); diarrhea (38.3 %); thrombocytopenia (33.3 %), anorexia (26.7 %), mucositis (25.0 %); nausea (25.0 %), dysgeusia (20.0 %), and neutropenia (20.0 %). Conclusions The study met its primary endpoint. S produced acceptable DCR and QOL improved; however, OR was disappointing (7 %) and toxicity was greater than expected. A biomarker to identify patients more likely to benefit from S is needed.

[20]

TÍTULO / TITLE: - Erratum to: Sunitinib malate in previously untreated, nonsquamous, non-small cell lung cancer patients over the age of 70 years: Results of a Phase II trial.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Invest New Drugs. 2013 Jul 6.

- Enlace al texto completo (gratis o de pago) [1007/s10637-013-9996-](#)

[X](#)

AUTORES / AUTHORS: - Reynolds C; Spira AI; Gluck L; Bradie-Muller SJ; Zhan F; Boehm KA; Asmar L

INSTITUCIÓN / INSTITUTION: - Ocala Oncology, Ocala, FL, USA,
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[21]

TÍTULO / TITLE: - Clinical benefit for patients with non-small cell lung cancer enrolled in phase I trials.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Onkologie. 2013;36(6):357-62. doi: 10.1159/000351257. Epub 2013 May 13.

●● Enlace al texto completo (gratis o de pago) [1159/000351257](#)

AUTORES / AUTHORS: - Levy A; Gomez-Roca C; Massard C; Planchard D; Albiges L; Bahleda R; Bourcier C; Deutsch E; Soria JC; Besse B

INSTITUCIÓN / INSTITUTION: - SITEP (Service des Innovations Therapeutiques Precoces), Department of Medicine, Institut Gustave Roussy, Paris XI University, Villejuif, France.

RESUMEN / SUMMARY: - AIM: To analyze the clinical features and outcomes of advanced non-small cell lung cancer (NSCLC) patients treated in phase I trials. PATIENTS AND METHODS: The clinical characteristics, efficacy and toxicity data of 70 pretreated NSCLC patients enrolled in 17 phase I trials between January 2005 and June 2010 were analyzed at our institution. RESULTS: The histological types were: adenocarcinoma (79%), squamous cell carcinoma (13%), and others. Patients received a median number of 3 prior lines of treatment before inclusion. 1 complete response (CR), 11 (16%) partial responses (PRs), and 29 (41%) stable diseases (SDs) were observed (according to Response Evaluation Criteria in Solid Tumors (RECIST)). The median overall survival (OS) time was 18 months and the median progression-free survival (PFS) time was 4.1 months. The median PFS of these patients within their prior therapy line before phase I inclusion was 4.3 months. A performance status score of 0 and the number of prior lines of treatment were significant for OS and PFS in multivariate analysis, respectively. Grade 3/4 toxicities were observed in 20 (27%) patients, and there was 1 treatment-related death. CONCLUSION: Patients in good general condition and with limited pretreatment derived an improved benefit, suggesting that phase I studies may be a valid option for pretreated NSCLC patients.

[22]

TÍTULO / TITLE: - Maintenance therapy with pemetrexed versus docetaxel after induction therapy with carboplatin and pemetrexed in chemotherapy-naive patients with advanced non-squamous non-small-cell lung cancer: a randomized, phase II study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Chemother Pharmacol. 2013 Aug;72(2):445-52. doi: 10.1007/s00280-013-2218-6. Epub 2013 Jun 27.

●● Enlace al texto completo (gratis o de pago) [1007/s00280-013-2218-](#)

[6](#)

AUTORES / AUTHORS: - Karayama M; Inui N; Kuroishi S; Yokomura K; Toyoshima M; Shirai T; Masuda M; Yamada T; Yasuda K; Suda T; Chida K

INSTITUCIÓN / INSTITUTION: - Second Division, Department of Internal Medicine, Hamamatsu University School of Medicine, 1-20-1 Handayama, Hamamatsu, 431-3192, Japan.

RESUMEN / SUMMARY: - **PURPOSE:** The optimal strategy for maintenance chemotherapy is controversial. We evaluated the efficacy and safety of continuation maintenance with pemetrexed and switch maintenance with docetaxel in advanced non-squamous non-small-cell lung cancer (NSCLC). **METHODS:** Chemotherapy-naive patients with non-squamous NSCLC were enrolled in this randomized phase II study. Patients who achieved disease control after four cycles of induction therapy with carboplatin (AUC 6) and pemetrexed (500 mg/m²) were randomized to maintenance therapy with pemetrexed (500 mg/m²) or docetaxel (60 mg/m²). The primary endpoint was survival without toxicity, defined as the time from the initiation of maintenance therapy to the first date of any grade ≥ 3 toxicity or death due to any cause. **RESULTS:** A total of eighty-five patients were enrolled in the induction phase, and 26 patients were assigned to the pemetrexed maintenance therapy and 25 patients were assigned to the docetaxel maintenance therapy. Survival without toxicity was significantly longer in the pemetrexed group (median 20.8 months, 95 % confidence interval (CI) 0.7-not estimable) than in the docetaxel group (median 0.5 months, 95 % CI 0.2-2.0, hazard ratio 0.36, 95 % CI 0.17-0.74). **CONCLUSIONS:** Continuation maintenance with pemetrexed may be a feasible treatment option for patients with non-squamous NSCLC who have achieved disease control after induction therapy with carboplatin and pemetrexed. Switch maintenance with docetaxel may also be efficacious but frequently causes severe hematologic toxicity.

[23]

TÍTULO / TITLE: - Intercalated combination of chemotherapy and erlotinib for patients with advanced stage non-small-cell lung cancer (FASTACT-2): a randomised, double-blind trial.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lancet Oncol. 2013 Jul;14(8):777-86. doi: 10.1016/S1470-2045(13)70254-7. Epub 2013 Jun 17.

●● Enlace al texto completo (gratis o de pago) [1016/S1470-2045\(13\)70254-7](#)

AUTORES / AUTHORS: - Wu YL; Lee JS; Thongprasert S; Yu CJ; Zhang L; Ladrera G; Srimuninnimit V; Sriuranpong V; Sandoval-Tan J; Zhu Y; Liao M; Zhou C; Pan H; Lee V; Chen YM; Sun Y; Margono B; Fuerte F; Chang GC; Seetalarom K; Wang J; Cheng A; Syahrudin E; Qian X; Ho J; Kurnianda J; Liu HE; Jin K; Truman M; Bara I; Mok T

INSTITUCIÓN / INSTITUTION: - Guangdong Lung Cancer Institute, Guangdong General Hospital, Guangdong Academy of Medical Sciences, Guangzhou, China.

RESUMEN / SUMMARY: - BACKGROUND: The results of FASTACT, a randomised, placebo-controlled, phase 2 study, showed that intercalated chemotherapy and erlotinib significantly prolonged progression-free survival (PFS) in patients with advanced non-small-cell lung cancer. We undertook FASTACT-2, a phase 3 study in a similar patient population. METHODS: In this phase 3 trial, patients with untreated stage IIIB/IV non-small-cell lung cancer were randomly assigned in a 1:1 ratio by use of an interactive internet response system with minimisation algorithm (stratified by disease stage, tumour histology, smoking status, and chemotherapy regimen) to receive six cycles of gemcitabine (1250 mg/m²) on days 1 and 8, intravenously) plus platinum (carboplatin 5 x area under the curve or cisplatin 75 mg/m²) on day 1, intravenously) with intercalated erlotinib (150 mg/day on days 15-28, orally; chemotherapy plus erlotinib) or placebo orally (chemotherapy plus placebo) every 4 weeks. With the exception of an independent group responsible for monitoring data and safety monitoring board, everyone outside the interactive internet response system company was masked to treatment allocation. Patients continued to receive erlotinib or placebo until progression or unacceptable toxicity or death, and all patients in the placebo group were offered second-line erlotinib at the time of progression. The primary endpoint was PFS in the intention-to-treat population. This trial is registered with ClinicalTrials.gov, number NCT00883779. FINDINGS: From April 29, 2009, to Sept 9, 2010, 451 patients were randomly assigned to chemotherapy plus erlotinib (n=226) or chemotherapy plus placebo (n=225). PFS was significantly prolonged with chemotherapy plus erlotinib versus chemotherapy plus placebo (median PFS 7.6 months [95% CI 7.2-8.3], vs 6.0 months [5.6-7.1], hazard ratio [HR] 0.57 [0.47-0.69]; p<0.0001). Median overall survival for patients in the chemotherapy plus erlotinib and chemotherapy plus placebo groups was 18.3 months (16.3-20.8) and 15.2 months (12.7-17.5), respectively (HR 0.79 [0.64-0.99]; p=0.0420). Treatment benefit was noted only in patients with an activating EGFR gene mutation (median PFS 16.8 months [12.9-20.4] vs 6.9 months [5.3-7.6], HR 0.25 [0.16-0.39]; p<0.0001; median overall survival 31.4 months [22.2-undefined], vs 20.6 months [14.2-26.9], HR 0.48 [0.27-0.84]; p=0.0092). Serious adverse events were reported by 76 (34%) of 222 patients in the chemotherapy plus placebo group and 69 (31%) of 226 in the chemotherapy plus erlotinib group. The most common grade 3 or greater adverse events were neutropenia (65 [29%] patients and 55 [25%], respectively), thrombocytopenia (32 [14%] and 31 [14%], respectively), and anaemia (26 [12%] and 21 [9%], respectively). INTERPRETATION: Intercalated chemotherapy and erlotinib is a viable first-line option for patients with non-small-cell lung cancer with EGFR mutation-positive disease or selected patients with unknown EGFR mutation status. FUNDING: F Hoffmann-La Roche.

[24]

TÍTULO / TITLE: - Expectations about the effectiveness of radiation therapy among patients with incurable lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Jul 20;31(21):2730-5. doi: 10.1200/JCO.2012.48.5748. Epub 2013 Jun 17.

●● Enlace al texto completo (gratis o de pago)

[1200/JCO.2012.48.5748](#)

AUTORES / AUTHORS: - Chen AB; Cronin A; Weeks JC; Chrischilles EA; Malin J; Hayman JA; Schrag D

INSTITUCIÓN / INSTITUTION: - MPP, Dana-Farber Cancer Institute, 450 Brookline Ave, D1111, Boston, MA 02215; achen@iroc.harvard.edu.

RESUMEN / SUMMARY: - PURPOSE Although radiation therapy (RT) can palliate symptoms and may prolong life, it is not curative for patients with metastatic lung cancer. We investigated patient expectations about the goals of RT for incurable lung cancers. PATIENTS AND METHODS The Cancer Care Outcomes Research and Surveillance Consortium enrolled a population- and health system-based cohort of patients diagnosed with lung cancer from 2003 to 2005. We identified patients with stage wet IIIB or IV lung cancer who received RT and answered questions on their expectations about RT. We assessed patient expectations about the goals of RT and identified factors associated with inaccurate beliefs about cure. Results In all, 384 patients completed surveys on their expectations about RT. Seventy-eight percent of patients believed that RT was very or somewhat likely to help them live longer, and 67% believed that RT was very or somewhat likely to help them with problems related to their cancer. However, 64% did not understand that RT was not at all likely to cure them. Older patients and nonwhites were more likely to have inaccurate beliefs, and patients whose surveys were completed by surrogates were less likely to have inaccurate beliefs. Ninety-two percent of patients with inaccurate beliefs about cure from RT also had inaccurate beliefs about chemotherapy. CONCLUSION Although patients receiving RT for incurable lung cancer believe it will help them, most do not understand that it is not at all likely to cure their disease. This indicates a need to improve communication regarding the goals and limitations of palliative RT.

[25]

TÍTULO / TITLE: - Underuse of Hospice Care by Medicaid-Insured Patients With Stage IV Lung Cancer in New York and California.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Jul 10;31(20):2569-79. doi: 10.1200/JCO.2012.45.9271. Epub 2013 Jun 3.

●● Enlace al texto completo (gratis o de pago)

[1200/JCO.2012.45.9271](#)

AUTORES / AUTHORS: - Mack JW; Chen K; Boscoe FP; Gesten FC; Roohan PJ; Weeks JC; Schymura MJ; Schrag D

INSTITUCIÓN / INSTITUTION: - Dana-Farber Cancer Institute, 450 Brookline Ave, Boston, MA 02215; Jennifer_mack@dfci.harvard.edu.

RESUMEN / SUMMARY: - PURPOSE Medicare patients with advanced cancer have low rates of hospice use. We sought to evaluate hospice use among patients in Medicaid, which insures younger and indigent patients, relative to those in Medicare. PATIENTS AND METHODS Using linked patient-level data from California (CA) and New York (NY) state cancer registries, state Medicaid programs, NY Medicare, and CA Surveillance, Epidemiology, and End Results-Medicare data, we identified 4,797 CA Medicaid patients and 4,001 NY Medicaid patients ages 21 to 64 years, as well as 27,416 CA Medicare patients and 16,496 NY Medicare patients ages ≥ 65 years who were diagnosed with stage IV lung cancer between 2002 and 2006. We evaluated hospice use, timing of enrollment, and location of death (inpatient hospice; long-term care facility or skilled nursing facility; acute care facility; home with hospice; or home without hospice). We used multiple logistic regressions to evaluate clinical and sociodemographic factors associated with hospice use. Results Although 53% (CA) and 44% (NY) of Medicare patients ages ≥ 65 years used hospice, fewer than one third of Medicaid-insured patients ages 21 to 64 years enrolled in hospice after a diagnosis of stage IV lung cancer (CA, 32%; NY, 24%). A minority of Medicaid patient deaths (CA, 19%; NY, 14%) occurred at home with hospice. Most Medicaid patient deaths were either in acute-care facilities (CA, 28%; NY, 36%) or at home without hospice (CA, 39%; NY, 41%). Patient race/ethnicity was not associated with hospice use among Medicaid patients. CONCLUSION Given low rates of hospice use among Medicaid enrollees and considerable evidence of suffering at the end of life, opportunities to improve palliative care delivery should be prioritized.

[26]

TÍTULO / TITLE: - Routine EGFR Molecular Analysis in Non-Small-Cell Lung Cancer Patients is Feasible: Exons 18-21 Sequencing Results of 753 Patients and Subsequent Clinical Outcomes.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung. 2013 Jun 9.

●● Enlace al texto completo (gratis o de pago) [1007/s00408-013-9482-](http://1007/s00408-013-9482-4)

[4](#)

AUTORES / AUTHORS: - Locatelli-Sanchez M; Couraud S; Arpin D; Riou R; Bringuier PP; Souquet PJ

INSTITUCIÓN / INSTITUTION: - Service de pneumologie et oncologie thoracique, CH Lyon Sud, Hospices Civils de Lyon, Lyon, France.

RESUMEN / SUMMARY: - BACKGROUND: Epidermal growth factor receptor (EGFR)-targeting therapies dramatically modified the prognosis of stage 4 non-

small-cell lung cancer. Sensitizing EGFR mutations are the best efficacy factor of these treatments. In 2006, the French National Cancer Institute launched a network of 28 centers for EGFR molecular analysis in routine practice. The aim of this retrospective study was to describe the results of routine EGFR analysis in one of these centers (Lyon University Hospital) and to assess outcomes in patients with the mutation. METHODS: EGFR mutations were analyzed for exons 18-21 by direct sequencing. The characteristics of each sample were retrospectively collected from the lab archives. Subsequent outcomes for patients harboring at least one mutation were retrospectively collected from each referring physician. RESULTS: During 1 year, 792 samples were analyzed, corresponding to 753 patients. A total of 133 mutations were diagnosed in 124 samples (15.7 %), corresponding to 121 patients. Most of them (77.4 %) were sensitizing mutations and were located in exons 19 and 21. Others were resistance mutations (8.3 %) or rare mutations (14.3 %) for which effects on tyrosine kinase inhibitor (TKI) sensitivity are unknown. The rate of indeterminate results (i.e., no sequencing of the entire exon 19 or 21) was 6.3 % (n = 50 samples). The only factor statistically associated with a risk of failure was sample from bone tissue: 13.7 % gave incomplete results (i.e., no whole sequencing of exons 18-21). CONCLUSIONS: Eighty-five of the 121 patients with EGFR mutations were treated with TKI. There were no differences in progression free survival (PFS) according to the type of molecule (erlotinib or gefitinib) or to the line of prescription of TKI. By contrast, exon 18 sensitizing mutations showed a worse PFS than exon 19 or 21 mutations. Finally, dose reduction was significantly more frequent in the erlotinib group than in the gefitinib group.

[27]

TÍTULO / TITLE: - Phase II Trial of Neoadjuvant Bevacizumab Plus Chemotherapy and Adjuvant Bevacizumab in Patients with Resectable Nonsquamous Non-Small-Cell Lung Cancers.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):1084-90. doi: 10.1097/JTO.0b013e31829923ec.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e31829923ec](#)

AUTORES / AUTHORS: - Chaft JE; Rusch V; Ginsberg MS; Paik PK; Finley DJ; Kris MG; Price KA; Azzoli CG; Fury MG; Riely GJ; Krug LM; Downey RJ; Bains MS; Sima CS; Rizk N; Travis WD; Rizvi NA

INSTITUCIÓN / INSTITUTION: - Departments of *Medicine, Division of Solid Tumor Oncology, Thoracic Oncology Service, daggerSurgery, Thoracic Service, double daggerRadiology, section signEpidemiology and Biostatistics, ||Pathology, Memorial Sloan-Kettering Cancer Center, Weill Cornell Medical College, New York, New York.

RESUMEN / SUMMARY: - INTRODUCTION: Bevacizumab improves survival in patients with advanced non-small-cell lung cancer (NSCLC). This phase II clinical trial assessed the effects of the addition of bevacizumab to neoadjuvant chemotherapy in resectable nonsquamous NSCLC. METHODS: Patients with resectable stage IB-IIIa nonsquamous NSCLC were treated with bevacizumab followed by imaging 2 weeks later to assess single-agent effect. After this they received two cycles of bevacizumab with four cycles of cisplatin and docetaxel followed by surgical resection. Resected patients were eligible for adjuvant bevacizumab. The primary endpoint was the rate of pathological downstaging (decrease from pretreatment clinical stage to post-treatment pathological stage). Secondary endpoints included overall survival, safety, and radiologic response. RESULTS: Fifty patients were enrolled. Thirty-four (68%) were clinical stage IIIa. All three doses of neoadjuvant bevacizumab were delivered to 40 of 50 patients. Six patients (12%) discontinued because of bevacizumab-related adverse events. The rate of downstaging (38%), response to chemotherapy (45%), and perioperative complications (12%) were comparable with historical data. No partial responses were observed to single-agent bevacizumab, but 18% of the patients developed new intratumoral cavitation, with a trend toward improved pathologic response (57% versus 21%; $p = 0.07$). A major pathologic response ($\geq 90\%$ treatment effect) was associated with survival at 3 years (100% versus 49%; $p = 0.01$). No patients with KRAS-mutant NSCLC (0 of 10) had a pathologic response as compared with 11 of 31 with wild-type KRAS. CONCLUSION: Although preoperative bevacizumab plus chemotherapy was feasible, it did not improve downstaging in unselected patients. New cavitation after single-agent bevacizumab is a potential biomarker. Alternative strategies are needed for KRAS-mutant tumors.

[28]

TÍTULO / TITLE: - Brain Metastasis in Patients With Non-Small-Cell Lung Cancer and Epidermal Growth Factor Receptor Mutations.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Jul 29.

- [Enlace al texto completo \(gratis o de pago\)](#)

[1200/JCO.2013.49.8915](#)

AUTORES / AUTHORS: - Bhatt VR; Kedia S; Kessinger A; Ganti AK

INSTITUCIÓN / INSTITUTION: - University of Nebraska Medical Center, Omaha, NE.

[29]

TÍTULO / TITLE: - Volumetric modulated arc therapy with flattening filter free (FFF) beams for stereotactic body radiation therapy (SBRT) in patients with medically inoperable early stage non small cell lung cancer (NSCLC).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Radiother Oncol. 2013 May 28. pii: S0167-8140(13)00191-6. doi: 10.1016/j.radonc.2013.04.016.

●● Enlace al texto completo (gratis o de pago)

[1016/j.radonc.2013.04.016](#)

AUTORES / AUTHORS: - Navarra P; Ascolese AM; Mancosu P; Alongi F; Clerici E; Tozzi A; Iftode C; Reggiori G; Tomatis S; Infante M; Alloisio M; Testori A; Fogliata A; Cozzi L; Morenghi E; Scorsetti M

INSTITUCIÓN / INSTITUTION: - Radiotherapy and Radiosurgery Department, Humanitas Cancer Center, Istituto Clinico Humanitas, Milan, Italy. Electronic address: piera.navarra@cancercenter.humanitas.it.

RESUMEN / SUMMARY: - **PURPOSE:** To assess the impact of volumetric modulated arc therapy (VMAT) with flattening filter free (FFF) beams for stereotactic body radiotherapy (SBRT) in inoperable stage I NSCLC. Current data were compared against a cohort of patients previously treated with advanced conformal techniques (3DCRT) based on conformal arcs. **METHODS AND MATERIALS:** From July 2006 to December 2011 132 patients underwent SBRT, 86 by 3DCRT with flattened beams (FF), while the last 46 with VMAT RapidArc and unflattened beams (FFF). All patients were treated with 48Gy in four fractions of 12Gy each. Patients underwent follow-up. Clinical outcome was evaluated with thoracic and abdominal CT scan and 18FDG-CTPET before and after treatment. **RESULTS:** Both techniques achieved adequate dose conformity to the target but with a statistically significant reduction of ipsilateral lung doses in RapidArc plans and also of Beam-on-Time (BOT) with FFF mode. The median follow up was 16months (range 2-24months). At 1year, local control rate was 100% with FFF beams compared with 92.5% with FF beams (p=0.03). **CONCLUSIONS:** SBRT with FFF beams permitted us a safe delivery of high dose per fraction in a short treatment time and resulted in an earlier radiological response compared with FF beams.

[30]

TÍTULO / TITLE: - Pathway-Based Serum microRNA Profiling and Survival in Patients with Advanced Stage Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Res. 2013 Aug 1;73(15):4801-9. doi: 10.1158/0008-5472.CAN-12-3273. Epub 2013 Jun 17.

●● Enlace al texto completo (gratis o de pago) [1158/0008-5472.CAN-12-3273](#)

AUTORES / AUTHORS: - Wang Y; Gu J; Roth JA; Hildebrandt MA; Lippman SM; Ye Y; Minna JD; Wu X

INSTITUCIÓN / INSTITUTION: - Authors' Affiliations: Departments of Epidemiology and Thoracic & Cardiovascular Surgery, The University of Texas MD Anderson Cancer Center, Houston; The University of Texas Southwestern Medical

Center, Dallas, Texas; and Moores Cancer Center at the University of California, San Diego, La Jolla, California.

RESUMEN / SUMMARY: - This study was designed to identify TGF-beta signaling pathway-related serum microRNAs (miRNA) as predictors of survival in advanced non-small cell lung cancer (NSCLC). Serum samples from 391 patients with advanced NSCLC were collected before treatment. Global miRNA microarray expression profiling based on sera from four patients with good survival (>24 months) and four patients with poor survival (<6 months) was used to identify 140 highly expressed serum miRNAs, among which 35 miRNAs had binding sites within the 3'-untranslated regions of a panel of 11 genes in the TGF-beta signaling pathway and were assayed by quantitative RT-PCR for their associations with survival in a training (n = 192) and testing set (n = 191). Out of the 35 miRNAs, survival analysis using Cox regression model identified 17 miRNAs significantly associated with 2-year patient survival. MiR-16 exhibited the most statistically significant association: high expression of miR-16 was associated with a significantly better survival [adjusted hazard ratio (HR) = 0.4, 95% confidence interval (CI): 0.3-0.5]. A combined 17-miRNA risk score was created that was able to identify patients at the highest risk of death. Those with a high-risk score had a 2.5-fold increased risk of death compared with those with a low risk score (95% CI: 1.8-3.4; P = 1.1 x 10⁽⁻⁷⁾). This increase in risk of death was corresponding to a 7.8-month decrease in median survival time (P = 9.5 x 10⁽⁻¹⁴⁾). Our results suggest that serum miRNAs could serve as predictors of survival for advanced NSCLC. Cancer Res; 73(15); 4801-9. ©2013 AACR.

[31]

TÍTULO / TITLE: - Differential Tks5 isoform expression contributes to metastatic invasion of lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Genes Dev. 2013 Jul 15;27(14):1557-67. doi: 10.1101/gad.222745.113.

●● Enlace al texto completo (gratis o de pago) 1101/gad.222745.113

AUTORES / AUTHORS: - Li CM; Chen G; Dayton TL; Kim-Kiselak C; Hoersch S; Whittaker CA; Bronson RT; Beer DG; Winslow MM; Jacks T

INSTITUCIÓN / INSTITUTION: - David H. Koch Institute for Integrative Cancer Research, Department of Biology, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139, USA;

RESUMEN / SUMMARY: - Metastasis accounts for the vast majority of cancer-related deaths, yet the molecular mechanisms that drive metastatic spread remain poorly understood. Here we report that Tks5, which has been linked to the formation of proteolytic cellular protrusions known as invadopodia, undergoes an isoform switch during metastatic progression in a genetically engineered mouse model of lung adenocarcinoma. Nonmetastatic primary

tumor-derived cells predominantly expressed a short isoform, Tks5short, while metastatic primary tumor- and metastasis-derived cells acquired increased expression of the full-length isoform Tks5long. This elevation of Tks5long to Tks5short ratio correlated with a commensurate increase in invadopodia activity in metastatic cells compared with nonmetastatic cells. Further characterization of these isoforms by knockdown and overexpression experiments demonstrated that Tks5long promoted invadopodia in vitro and increased metastasis in transplant models and an autochthonous model of lung adenocarcinoma. Conversely, Tks5short decreased invadopodia stability and proteolysis, acting as a natural dominant-negative inhibitor to Tks5long. Importantly, high Tks5long and low Tks5short expressions in human lung adenocarcinomas correlated with metastatic disease and predicted worse survival of early stage patients. These data indicate that tipping the Tks5 isoform balance to a high Tks5long to Tks5short ratio promotes invadopodia-mediated invasion and metastasis.

[32]

TÍTULO / TITLE: - PARAMOUNT: Final Overall Survival Results of the Phase III Study of Maintenance Pemetrexed Versus Placebo Immediately After Induction Treatment With Pemetrexed Plus Cisplatin for Advanced Nonsquamous Non-Small-Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Aug 10;31(23):2895-902. doi: 10.1200/JCO.2012.47.1102. Epub 2013 Jul 8.

●● Enlace al texto completo (gratis o de pago)

[1200/JCO.2012.47.1102](#)

AUTORES / AUTHORS: - Paz-Ares LG; de Marinis F; Dediu M; Thomas M; Pujol JL; Bidoli P; Molinier O; Sahoo TP; Laack E; Reck M; Corral J; Melemed S; John W; Chouaki N; Zimmermann AH; Visseren-Grul C; Gridelli C

INSTITUCIÓN / INSTITUTION: - Servicio de Oncología Médica, University Hospital Virgen del Rocío, Av. Manuel Siurot s/n 41013 Sevilla, España;

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RESUMEN / SUMMARY: - PURPOSE In the phase III PARAMOUNT trial, pemetrexed continuation maintenance therapy reduced the risk of disease progression versus placebo (hazard ratio [HR], 0.62; 95% CI, 0.49 to 0.79; P < .001). Here we report final overall survival (OS) and updated safety data. PATIENTS AND METHODS In all, 939 patients with advanced nonsquamous non-small-cell lung cancer (NSCLC) received four cycles of pemetrexed-cisplatin induction therapy; then, 539 patients with no disease progression and Eastern Cooperative Oncology Group performance status 0 or 1 were randomly assigned (2:1) to maintenance pemetrexed (500 mg/m²) on day 1 of 21-day cycles; n = 359) or placebo (n = 180). Log-rank test compared OS between arms as measured from random assignment (alpha = .0498). Results The

mean number of maintenance cycles was 7.9 (range, one to 44) for pemetrexed and 5.0 (range, one to 38) for placebo. After 397 deaths (pemetrexed, 71%; placebo, 78%) and a median follow-up of 24.3 months for alive patients (95% CI, 23.2 to 25.1 months), pemetrexed therapy resulted in a statistically significant 22% reduction in the risk of death (HR, 0.78; 95% CI, 0.64 to 0.96; P = .0195; median OS: pemetrexed, 13.9 months; placebo, 11.0 months). Survival on pemetrexed was consistently improved for all patient subgroups, including induction response: complete/partial responders (n = 234) OS HR, 0.81; 95% CI, 0.59 to 1.11 and stable disease (n = 285) OS HR, 0.76; 95% CI, 0.57 to 1.01). Postdiscontinuation therapy use was similar: pemetrexed, 64%; placebo, 72%. No new safety findings emerged. Drug-related grade 3 to 4 anemia, fatigue, and neutropenia were significantly higher in pemetrexed-treated patients. CONCLUSION Pemetrexed continuation maintenance therapy is well-tolerated and offers superior OS compared with placebo, further demonstrating that it is an efficacious treatment strategy for patients with advanced nonsquamous NSCLC and good performance status who did not progress during pemetrexed-cisplatin induction therapy.

[33]

TÍTULO / TITLE: - Patients with advanced non-small-cell lung cancer and marginal performance status: walking the tight rope towards improved survival.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Aug 10;31(23):2841-3. doi: 10.1200/JCO.2013.50.1502. Epub 2013 Jul 8.

●● Enlace al texto completo (gratis o de pago)

[1200/JCO.2013.50.1502](#)

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[34]

TÍTULO / TITLE: - A phase II clinical trial of the Vascular Disrupting Agent BNC105P as second line chemotherapy for advanced Malignant Pleural Mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jun 17. pii: S0169-5002(13)00218-3. doi: 10.1016/j.lungcan.2013.05.006.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.006](#)

AUTORES / AUTHORS: - Nowak AK; Brown C; Millward MJ; Creaney J; Byrne MJ; Hughes B; Kremmidiotis G; Bibby DC; Leske AF; Mitchell PL; Pavlakis N; Boyer M; Stockler MR

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RESUMEN / SUMMARY: - BNC105P is a tubulin polymerisation inhibitor that selectively disrupts tumour vasculature and suppresses cancer cell proliferation. This agent has exhibited preclinical and phase I activity in Malignant Pleural Mesothelioma (MPM). This phase II, single arm trial investigated the efficacy and safety of BNC105P as second line therapy in MPM. Participants had progressive MPM after first line pemetrexed/platinum chemotherapy, ECOG PS 0-1, adequate organ function, and measurable disease. BNC105P 16mg/m² was administered intravenously on day 1 and 8 every 21 days until progression or undue toxicity. The primary endpoint was centrally reviewed objective response rate (RR). Tumour response was assessed every two cycles using modified RECIST. 30 patients were enrolled in 10 months, predominantly male (90%), ECOG PS 1 (77%), epithelioid histology (67%), and non-metastatic disease (67%). All patients received at least one dose of study drug, with a median of 2 cycles. No significant haematologic, biochemical, or cardiac adverse events (AEs) were observed. Grade 3 or 4 AEs occurred in 10 patients (33%). There were 2 deaths on study: 1 cardiorespiratory, the other to pneumonia. We observed 1 partial response (3%); 13 patients had stable disease (43%). Median progression free survival was 1.5 months (95% CI 1.4-2.4); median overall survival was 8.2 months (95% CI 3.8-11.9). BNC105P was safe and tolerable. The sole response was insufficient to warrant further research as a single agent.

[35]

TÍTULO / TITLE: - Autophagy suppresses progression of K-ras-induced lung tumors to oncocytomas and maintains lipid homeostasis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Genes Dev. 2013 Jul 1;27(13):1447-61. doi: 10.1101/gad.219642.113.

●● Enlace al texto completo (gratis o de pago) [1101/gad.219642.113](https://doi.org/10.1101/gad.219642.113)

AUTORES / AUTHORS: - Guo JY; Karsli-Uzunbas G; Mathew R; Aisner SC; Kamphorst JJ; Strohecker AM; Chen G; Price S; Lu W; Teng X; Snyder E; Santanam U; Dipaola RS; Jacks T; Rabinowitz JD; White E

INSTITUCIÓN / INSTITUTION: - The Cancer Institute of New Jersey, New Brunswick, New Jersey 08903, USA;

RESUMEN / SUMMARY: - Macroautophagy (autophagy hereafter) degrades and recycles proteins and organelles to support metabolism and survival in starvation. Oncogenic Ras up-regulates autophagy, and Ras-transformed cell

lines require autophagy for mitochondrial function, stress survival, and engrafted tumor growth. Here, the essential autophagy gene autophagy-related-7 (atg7) was deleted concurrently with K-ras(G12D) activation in mouse models for non-small-cell lung cancer (NSCLC). atg7-deficient tumors accumulated dysfunctional mitochondria and prematurely induced p53 and proliferative arrest, which reduced tumor burden that was partly relieved by p53 deletion. atg7 loss altered tumor fate from adenomas and carcinomas to oncocytomas-rare, predominantly benign tumors characterized by the accumulation of defective mitochondria. Surprisingly, lipid accumulation occurred in atg7-deficient tumors only when p53 was deleted. atg7- and p53-deficient tumor-derived cell lines (TDCLs) had compromised starvation survival and formed lipidic cysts instead of tumors, suggesting defective utilization of lipid stores. atg7 deficiency reduced fatty acid oxidation (FAO) and increased sensitivity to FAO inhibition, indicating that with p53 loss, Ras-driven tumors require autophagy for mitochondrial function and lipid catabolism. Thus, autophagy is required for carcinoma fate, and autophagy defects may be a molecular basis for the occurrence of oncocytomas. Moreover, cancers require autophagy for distinct roles in metabolism that are oncogene- and tumor suppressor gene-specific.

[36]

TÍTULO / TITLE: - A phase I/II trial of Tumor Treating Fields (TTFields) therapy in combination with pemetrexed for advanced non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 23. pii: S0169-5002(13)00308-5. doi: 10.1016/j.lungcan.2013.06.025.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1016/j.lungcan.2013.06.025](#)

AUTORES / AUTHORS: - Pless M; Droege C; von Moos R; Salzberg M; Betticher D

INSTITUCIÓN / INSTITUTION: - Medical Oncology, Kantonsspital Winterthur, Switzerland. Electronic address: Miklos.Pless@ksw.ch.

RESUMEN / SUMMARY: - BACKGROUND: Low intensity, intermediate frequency, alternating electric fields (Tumor Treating Fields; TTFields) exhibit anti-mitotic activity in cancer cells. Promising preclinical data have led to a single arm phase I/II trial in NSCLC patients. METHODS: Forty-two inoperable stage IIIB (with pleural effusion) and IV NSCLC patients who had had tumor progression received pemetrexed 500mg/m² iv q3w together with daily TTFields therapy until disease progression. The primary endpoint was time to “in-field” progression. RESULTS: Median age for all patients was 63 years, 76% had stage IV disease, 78% had adenocarcinoma and 17% had performance status of 2. The median time to in-field progression was 28 weeks and the median time to systemic progression was 22 weeks. Six patients (14.6%) had a partial

remission (PR) and 20 had stable disease (SD) (48.8%). Median overall survival was 13.8 months and 1 year survival rate was 57%. There were no TTFelds-related serious adverse events. CONCLUSIONS: The combination of TTFelds and pemetrexed as a second line therapy for NSCLC is safe and potentially more effective than pemetrexed alone. TTFelds improved disease control within the treatment field and a phase III study is planned to further investigate its role as a novel treatment in NSCLC.

[37]

TÍTULO / TITLE: - No association between simian virus 40 and diffuse malignant mesothelioma of the pleura in Iranian patients: A molecular and epidemiologic case-control study of 60 patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Ind Med. 2013 Jul 5. doi: 10.1002/ajim.22160.

●● [Enlace al texto completo \(gratis o de pago\) 1002/ajim.22160](#)

AUTORES / AUTHORS: - Mohammad-Taheri Z; Nadji SA; Raisi F; Mohammadi F; Bahadori M; Mark EJ

INSTITUCIÓN / INSTITUTION: - Virology Research Center, National Research Institute of Tuberculosis and Lung Disease, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

RESUMEN / SUMMARY: - BACKGROUND: Diffuse malignant mesothelioma (DMM) is increasing in incidence on a worldwide basis and is linked to exposure to asbestos. Simian virus 40 (SV40), a DNA virus, was introduced inadvertently to human populations through contaminated polio vaccine during the years 1956-1963. It has been associated with various types of malignancy in animal experiments. There have been suggestions that SV40 might play a role in the pathogenesis of DMM. OBJECTIVE: To evaluate the association between SV40 and DMM in Iranian patients. METHOD: In a case-control study between the years 2007-2008, isolated DNA from 60 paraffin blocks of patients with DMM and 60 controls was assessed to detect three human polyomaviruses (JCV, BKV, and SV40) using three different sets of primers by multiplex nested PCR analysis. We related the patients with diffuse malignant mesothelioma to possible sites of exposure to asbestos. RESULTS: None of the DMMs nor any patient in the control group had SV40 genome on polymerase chain reaction (PCR). All of the cases were SV40 T antigen negative. CONCLUSION: This study suggests that DMM is independent of SV40 infection in Iran. Am. J. Ind. Med. © 2013 Wiley Periodicals, Inc.

[38]

TÍTULO / TITLE: - The influence of smoking intensity on the clinicopathologic features and survival of patients with surgically treated non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 26. pii: S0169-5002(13)00311-5. doi: 10.1016/j.lungcan.2013.07.002.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.07.002](#)

AUTORES / AUTHORS: - Park SY; Lee JG; Kim J; Bae MK; Lee CY; Kim DJ; Chung KY

INSTITUCIÓN / INSTITUTION: - Department of Thoracic and Cardiovascular Surgery, Yonsei University, College of Medicine, Seoul, Republic of Korea.

RESUMEN / SUMMARY: - BACKGROUND: Smoking is a well-known carcinogen for lung cancer. However, whether smoking affects the biological behavior of lung cancer remains uncertain. This study aimed to investigate the influences of smoking intensity on the clinicopathologic characteristics of and survival in non-small cell lung cancer (NSCLC). METHODS: We retrospectively reviewed 2238 consecutive patients who underwent surgical resection for NSCLC between 1990 and 2010. Smoking intensity was defined as pack-years (PY). The patients were divided into three groups according to the median value of smoking intensity (40 PY): group A (never smokers), group B (smoking intensity less than 40 PY) and group C (smoking intensity more than 40 PY). RESULTS: There were 1629 (72.8%) male patients, and the mean age was 61.71±13.17 years. Adenocarcinoma was reported in 1058 (47.3%) patients. The median follow-up period was 30.7 months (range: 0.0-261.7 months). The 5-year overall survivals for groups A, B and C were 60.1%, 51.6% and 43.2%, respectively (p<0.001). In subset analysis by histology, the 5-year overall survival was significantly different according to smoking intensity in adenocarcinoma (p<0.001), but there was no difference in the non-adenocarcinoma. In adenocarcinoma, the incidences of vascular invasion (p=0.028), pleural invasion (p=0.013) and poor differentiation (p<0.001) were higher and tumor sizes (p<0.001) were greater in group C than others. On multivariate analysis, smoking intensity was an adverse risk factor for overall survival in surgically treated adenocarcinoma patients (hazard ratio=1.008, p=0.028). CONCLUSION: Smoking intensity was an adverse prognostic factor after surgical resection of adenocarcinoma. Heavy smoking was correlated with poor pathologic characteristics in adenocarcinoma.

[39]

TÍTULO / TITLE: - Surgery in the treatment of malignant pleural mesothelioma: recruitment into trials should be the default position.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Thorax. 2013 Jun 12. doi: 10.1136/thoraxjnl-2013-203846.

●● Enlace al texto completo (gratis o de pago) [1136/thoraxjnl-2013-203846](#)

AUTORES / AUTHORS: - Datta A; Smith R; Fiorentino F; Treasure T

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, York Teaching Hospital NHS Foundation Trust, York, UK.

RESUMEN / SUMMARY: - **BACKGROUND:** Europe is at the peak of an epidemic of malignant pleural mesothelioma and the burden of disease is likely to continue rising in the large areas of the world where asbestos remains unregulated. Patients with mesothelioma present with thoracic symptoms and radiological changes so respiratory physicians take a leading role in diagnosis and management. Belief that the modest survival times reported after radical surgery, whether alone or as part of multimodal therapy, are longer than they would have been without surgery relies on data from highly selected, uncontrolled, retrospectively analysed case series. The only randomised study, the Mesothelioma and Radical Surgery (MARS) trial showed no benefit. A simple modelling study of registry patients, described here, shows that an impression of longer survival is eroded when patients who were never candidates for operation on grounds of histology, performance status and age are sequentially excluded from the model. **CONCLUSION:** Whenever the question arises 'Might an operation help me?' there are two responses that can and should be given. The first is that there is doubt about whether there is any survival or symptomatic benefit from surgery but we know that there is harm. The second is that there are on-going studies, including two randomised trials, which patients should be informed about. The authors suggest that the default position for clinicians should be to encourage recruitment into these trials.

[40]

TÍTULO / TITLE: - Should Erlotinib Be Coadministered With Whole-Brain Radiotherapy in Patients With Brain Metastases and Non-Small-Cell Lung Cancer?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Jul 29.

●● Enlace al texto completo (gratis o de pago)

[1200/JCO.2013.50.0710](#)

AUTORES / AUTHORS: - Chamberlain MC

INSTITUCIÓN / INSTITUTION: - University of Washington; Fred Hutchinson Cancer Research Center; and Seattle Cancer Care Alliance, Seattle, WA.

[41]

TÍTULO / TITLE: - Epidermal growth factor receptor tyrosine kinase inhibitors as initial therapy for non-small cell lung cancer: Focus on epidermal growth factor receptor mutation testing and mutation-positive patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Treat Rev. 2013 Jun 12. pii: S0305-7372(13)00093-5. doi: 10.1016/j.ctrv.2013.05.001.

●● Enlace al texto completo (gratis o de pago) 1016/j.ctrv.2013.05.001

AUTORES / AUTHORS: - Roengvoraphoj M; Tsongalis GJ; Dragnev KH; Rigas JR

INSTITUCIÓN / INSTITUTION: - Comprehensive Thoracic Oncology Program, Norris Cotton Cancer Center, Dartmouth-Hitchcock Medical Center, One Medical Center Drive, Lebanon, NH 03756-0001, USA; The Geisel School of Medicine at Dartmouth, One Rope Ferry Road, Hanover, NH 03755-1404, USA. Electronic address: monic.roengvoraphoj@hitchcock.org.

RESUMEN / SUMMARY: - Activation of the epidermal growth factor receptor (EGFR) pathway has been implicated in tumorigenesis in non-small cell lung cancer (NSCLC), the most common type of lung cancer. As a result, EGFR has become a key focus for the development of personalized therapy, with several molecular biomarkers having been investigated as potential predictors of response with EGFR tyrosine kinase inhibitors (TKIs) in NSCLC (e.g., EGFR expression, EGFR gene copy gain, and EGFR mutations). Of these, activating mutations in EGFR have thus far given the most consistent results based on the available evidence from preclinical studies and clinical trials. In an attempt to identify patients who are most likely to benefit from treatment with EGFR TKIs, EGFR mutation testing is being increasingly utilized in clinical practice. Currently in the United States, no EGFR TKI or accompanying mutational test is approved for the identification and first-line treatment of patients with advanced NSCLC. However, the first-generation EGFR TKIs, erlotinib and gefitinib, as well as investigational ErbB family TKIs and EGFR mutation testing methods are being evaluated in this setting. This review will discuss EGFR mutation testing as a biomarker of response to EGFR TKIs and the evolution of EGFR mutational analysis in NSCLC. Completed and ongoing clinical trials evaluating currently available or investigational EGFR TKIs as first-line therapy in molecularly and clinically selected patients with NSCLC, with a focus on trials in patients whose tumors have EGFR mutations, will also be reviewed.

[42]

TÍTULO / TITLE: - Risk factor analysis of locoregional recurrence after sublobar resection in patients with clinical stage IA non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Cardiovasc Surg. 2013 Aug;146(2):372-8. doi: 10.1016/j.jtcvs.2013.02.057.

●● Enlace al texto completo (gratis o de pago)

1016/j.jtcvs.2013.02.057

AUTORES / AUTHORS: - Koike T; Koike T; Yoshiya K; Tsuchida M; Toyabe S

INSTITUCIÓN / INSTITUTION: - Division of Chest Surgery, Niigata Cancer Center Hospital, Niigata, Japan; Division of Thoracic and Cardiovascular Surgery,

Niigata University Graduate School of Medical and Dental Sciences, Niigata, Japan.

RESUMEN / SUMMARY: - OBJECTIVE: Although lobectomy is the standard surgical procedure for operable non-small cell lung cancer (NSCLC), sublobar resection also has been undertaken for various reasons. The aim of this study was to identify risk factors of locoregional recurrence and poor disease-specific survival in patients with clinical stage IA NSCLC undergoing sublobar resection. METHODS: We retrospectively reviewed 328 patients with clinical stage IA NSCLC who underwent segmentectomy or wedge resection. Demographic, clinical, and pathologic factors were analyzed using the log-rank test as univariate analyses, and all factors were entered into a Cox proportional hazards regression model for multivariate analyses to identify independent predictors of locoregional recurrence and poor disease-specific survival. RESULTS: The 5- and 10-year locoregional recurrence-free probabilities were 84.8% and 83.6%, respectively, and the 5- and 10-year disease-specific survivals were 83.6% and 73.6%, respectively. Four independent predictors of locoregional recurrence were identified: wedge resection (hazard ratio [HR], 5.787), microscopic positive surgical margin (HR, 3.888), visceral pleural invasion (HR, 2.272), and lymphatic permeation (HR, 3.824). Independent predictors of poor disease-specific survival were identified as follows: smoking status (Brinkman Index; HR, 1.001), wedge resection (HR, 3.183), microscopic positive surgical margin (HR, 3.211), visceral pleural invasion (HR, 2.553), and lymphatic permeation (HR, 3.223). All 4 predictors of locoregional recurrence also were identified as independent predictors of poor disease-specific survival. CONCLUSIONS: Segmentectomy should be the surgical procedure of first choice in patients with clinical stage IA NSCLC who are being considered for sublobar resection. Patients having tumors presenting with no suspicious of pleural involvement would be suitable candidates for sublobar resection.

[43]

TÍTULO / TITLE: - Dissection of TBK1 signaling via phosphoproteomics in lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Proc Natl Acad Sci U S A. 2013 Jul 23;110(30):12414-9. doi: 10.1073/pnas.1220674110. Epub 2013 Jul 8.

●● Enlace al texto completo (gratis o de pago) [1073/pnas.1220674110](https://doi.org/10.1073/pnas.1220674110)

AUTORES / AUTHORS: - Kim JY; Welsh EA; Oguz U; Fang B; Bai Y; Kinose F; Bronk C; Remsing Rix LL; Beg AA; Rix U; Eschrich SA; Koomen JM; Haura EB

INSTITUCIÓN / INSTITUTION: - Departments of Thoracic Oncology, Biomedical Informatics, Immunology, Drug Discovery, and Molecular Oncology.

RESUMEN / SUMMARY: - TANK-binding kinase 1 (TBK1) has emerged as a novel therapeutic target for unspecified subset of lung cancers. TBK1 reportedly mediates prosurvival signaling by activating NF-kappaB and AKT. However, we

observed that TBK1 knockdown also decreased viability of cells expressing constitutively active NF-kappaB and interferon regulatory factor 3. Basal phospho-AKT level was not reduced after TBK1 knockdown in TBK1-sensitive lung cancer cells, implicating that TBK1 mediates unknown survival mechanisms. To gain better insight into TBK1 survival signaling, we searched for altered phosphoproteins using mass spectrometry following RNAi-mediated TBK1 knockdown. In total, we identified 2,080 phosphoproteins (4,621 peptides), of which 385 proteins (477 peptides) were affected after TBK1 knockdown. A view of the altered network identified a central role of Polo-like kinase 1 (PLK1) and known PLK1 targets. We found that TBK1 directly phosphorylated PLK1 in vitro. TBK1 phosphorylation was induced at mitosis, and loss of TBK1 impaired mitotic phosphorylation of PLK1 in TBK1-sensitive lung cancer cells. Furthermore, lung cancer cell sensitivity to TBK1 was highly correlated with sensitivity to pharmacological PLK inhibition. We additionally found that TBK1 knockdown decreased metadherin phosphorylation at Ser-568. Metadherin was associated with poor outcome in lung cancer, and loss of metadherin caused growth inhibition and apoptosis in TBK1-sensitive lung cancer cells. These results collectively revealed TBK1 as a mitosis regulator through activation of PLK1 and also suggested metadherin as a putative TBK1 downstream effector involved in lung cancer cell survival.

[44]

TÍTULO / TITLE: - Impact of epidermal growth factor receptor mutations on intracranial treatment response and survival after brain metastases in lung adenocarcinoma patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 18. pii: S0169-5002(13)00261-4. doi: 10.1016/j.lungcan.2013.06.004.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.06.004](#)

AUTORES / AUTHORS: - Hsiao SH; Lin HC; Chou YT; Lin SE; Kuo CC; Yu MC; Chung CL

INSTITUCIÓN / INSTITUTION: - Division of Pulmonary Medicine, Department of Internal Medicine, Taipei Medical University Hospital, 252 Wu-Xin Street, 110 Taipei, Taiwan.

RESUMEN / SUMMARY: - INTRODUCTION: Brain metastases (BM) commonly occur in patients with lung adenocarcinoma and usually lead to a poor prognosis and quality of life despite of radiotherapy. Epidermal growth factor receptor (EGFR) mutations have been widely demonstrated to be a predictive and prognostic factor for lung adenocarcinoma, however, its impact on BM from lung adenocarcinoma remains inconclusive. The present study aimed to elucidate the predictive role of EGFR mutations in BM treatment response and survival after BM in patients with lung adenocarcinoma. MATERIAL AND

METHODS: From January 2006 through February 2012, 180 of 505 lung adenocarcinoma patients developed BM during their disease course were reviewed for eligibility, and 139 patients, including 89 EGFR-mutant and 50 EGFR wild-type patients, were identified for analysis. RESULTS: Of the patients eligible for evaluation of treatment response, up to 85% received radiotherapy and the remaining took EGFR tyrosine kinase inhibitors (TKIs) as the front modality for BM. EGFR-mutant patients, compared with EGFR wild-type patients, had significantly greater intracranial treatment response of BM (84% vs. 48%, P=0.002), experienced higher therapeutic efficacy to radiotherapy (86% vs. 52%, P=0.005), and had longer median survival after BM diagnosis (13.2 vs. 6.8 months, P<0.001). Furthermore, EGFR mutation (P=0.002) and performance status (P=0.009) were independently associated with BM treatment response. Additionally, EGFR mutation (P=0.005), good performance status (P<0.001) and absence of extracranial metastases (P=0.033) correlated with better survival. CONCLUSION: EGFR mutation is an independent predictive factor for both BM treatment response and survival after BM in patients with lung adenocarcinoma. Further prospective studies on incorporation of EGFR mutation status into therapeutic strategy and survival prediction system for lung adenocarcinoma with BM are warranted.

[45]

TÍTULO / TITLE: - Modern Pharmacotherapy of Lung Disease: Targeted Therapy for Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Respir Crit Care Med. 2013 May 30.

●● Enlace al texto completo (gratis o de pago) 1164/rccm.201301-0189PP

AUTORES / AUTHORS: - Jett JR; Carr LL Md

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RESUMEN / SUMMARY: - The treatment of advanced non-small cell lung cancer has been with systemic chemotherapy and usually consisted of a platinum doublet chemotherapy. The identification of somatic driver mutations has resulted in new drugs which target these mutations. This report will discuss the two most important new targeted therapy drugs for treatment of advanced non-small cell lung cancer that have these driver mutations.

[46]

TÍTULO / TITLE: - Association of ERCC1-C118T and -C8092A polymorphisms with lung cancer risk and survival of advanced-stage non-small cell lung cancer patients receiving platinum-based chemotherapy: A pooled analysis based on 39 reports.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Gene. 2013 Sep 10;526(2):265-74. doi: 10.1016/j.gene.2013.05.021. Epub 2013 May 30.

●● Enlace al texto completo (gratis o de pago)

[1016/j.gene.2013.05.021](#)

AUTORES / AUTHORS: - Xu TP; Shen H; Liu LX; Shu YQ

INSTITUCIÓN / INSTITUTION: - Department of Oncology, The First Affiliated Hospital of Nanjing Medical University, No. 300 Guangzhou Road, Nanjing 210029, People's Republic of China.

RESUMEN / SUMMARY: - The published data on the predictive role of ERCC1 polymorphisms in lung cancer risk and survival of patients with advanced non-small cell lung cancer (NSCLC) receiving platinum-based chemotherapy remains inconsistent. The aim of this meta-analysis was to determine the role of ERCC1 gene polymorphisms (C118T and C8092A) in this clinical situation. Eligible studies were included and assessed for quality using multiple search strategies. Thirty-nine published papers involving 9615 cases (4606 with Stage III/IV disease) and 5542 controls were included in the analysis. Pooled odds ratios (OR) or hazard ratios (HR) with 95% confidence intervals (CI) were used to estimate risk. ERCC1-C118T was associated with lung cancer risk. The OR was 0.90 (95% CI: 0.81-0.99, $p=0.043$) in an additive genetic model (C allele vs. T allele) and 0.77 (95% CI: 0.63-0.95, $p=0.013$) in a recessive genetic model (CC/CT vs. TT). The corresponding risk was 0.74 (95% CI: 0.58-0.94, $p=0.013$) based on a homozygous comparison (CC vs. TT). No significant correlation was found for ERCC1 C8092A and there was no obvious relationship between ERCC1 C118T/C8092A polymorphisms and objective response to platinum-based chemotherapy. Overall survival (OS) of patients with non-small cell lung cancer (NSCLC) receiving platinum-based chemotherapy was significantly related to ERCC1 C118T (HR: 1.29, 95% CI: 1.07-1.56, $p=0.007$, CT/TT vs. CC). There was no relationship between ERCC1 C8092A and survival (HR: 1.32, 95% CI: 0.84-2.10, $p=0.23$, CA/AA vs. CC). These findings suggest that ERCC1 C118T polymorphisms may serve as a biomarker for lung cancer risk and have prognostic value in patients with advanced non-small cell lung cancer (NSCLC) undergoing platinum-based treatment. Further studies with larger numbers of subjects from a worldwide arena are needed to validate the associations.

[47]

TÍTULO / TITLE: - A multicenter phase II study of cetuximab in combination with chest radiotherapy and consolidation chemotherapy in patients with stage III non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 10. pii: S0169-5002(13)00259-6. doi: 10.1016/j.lungcan.2013.06.002.

- Enlace al texto completo (gratis o de pago)

1016/j.lungcan.2013.06.002

AUTORES / AUTHORS: - Ramalingam SS; Kotsakis A; Tarhini AA; Heron DE; Smith R; Friedland D; Petro DP; Raez LE; Brahmer JR; Greenberger JS; Dacic S; Hershberger P; Landreneau RJ; Luketich JD; Belani CP; Argiris A

INSTITUCIÓN / INSTITUTION: - Department of Hematology/Oncology, Winship Cancer Institute of Emory University School of Medicine, Atlanta, USA.

RESUMEN / SUMMARY: - BACKGROUND: Cetuximab has demonstrated improved efficacy in combination with chemotherapy and radiotherapy. We evaluated the integration of cetuximab in the combined modality treatment of stage III non-small cell lung cancer (NSCLC). METHODS: Patients with surgically unresectable stage IIIA or IIIB NSCLC were treated with chest radiotherapy, 73.5Gy (with lung and tissue heterogeneity corrections) in 35 fractions/7 weeks, once daily (63Gy without heterogeneity corrections). Cetuximab was given weekly during radiotherapy and continued during consolidation therapy with carboplatin and paclitaxel up to a maximum of 26 weekly doses. The primary endpoint was overall survival. Baseline tumor tissue was analyzed for EGFR by fluorescence in situ hybridization (FISH). RESULTS: Forty patients were enrolled in this phase II study. The median overall survival was 19.4 months and the median progression-free survival 9.3 months. The best overall response rate in 31 evaluable patients was 67%. No grade 3 or 4 esophagitis was observed. Three patients experienced grade 3 rash; 16 patients (69%) developed grade 3/4 neutropenia during consolidation therapy. One patient died of pneumonitis, possibly related to cetuximab. EGFR gene copy number on baseline tumor tissues, analyzed by FISH, was not predictive of efficacy outcomes. CONCLUSIONS: The addition of cetuximab to chest radiotherapy and consolidation chemotherapy was tolerated well and had modest efficacy in stage III NSCLC. Taken together with the lower incidence of esophagitis, our results support evaluation of targeted agents instead of chemotherapy with concurrent radiotherapy in this setting.

[48]

TÍTULO / TITLE: - Targeted genetic dependency screen facilitates identification of actionable mutations in FGFR4, MAP3K9, and PAK5 in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Proc Natl Acad Sci U S A. 2013 Jul 23;110(30):12426-31. doi: 10.1073/pnas.1305207110. Epub 2013 Jul 8.

- Enlace al texto completo (gratis o de pago) 1073/pnas.1305207110

AUTORES / AUTHORS: - Fawdar S; Trotter EW; Li Y; Stephenson NL; Hanke F; Marusiak AA; Edwards ZC; Ientile S; Waszkowycz B; Miller CJ; Brognard J

INSTITUCIÓN / INSTITUTION: - Signalling Networks in Cancer Group, Applied Computational Biology and Bioinformatics Group, and Drug Discovery Unit,

Cancer Research UK, Paterson Institute for Cancer Research, University of Manchester, Manchester M20 4BX, United Kingdom.

RESUMEN / SUMMARY: - Approximately 70% of patients with non-small-cell lung cancer present with late-stage disease and have limited treatment options, so there is a pressing need to develop efficacious targeted therapies for these patients. This remains a major challenge as the underlying genetic causes of approximately 50% of non-small-cell lung cancers remain unknown. Here we demonstrate that a targeted genetic dependency screen is an efficient approach to identify somatic cancer alterations that are functionally important. By using this approach, we have identified three kinases with gain-of-function mutations in lung cancer, namely FGFR4, MAP3K9, and PAK5. Mutations in these kinases are activating toward the ERK pathway, and targeted depletion of the mutated kinases inhibits proliferation, suppresses constitutive activation of downstream signaling pathways, and results in specific killing of the lung cancer cells. Genomic profiling of patients with lung cancer is ushering in an era of personalized medicine; however, lack of actionable mutations presents a significant hurdle. Our study indicates that targeted genetic dependency screens will be an effective strategy to elucidate somatic variants that are essential for lung cancer cell viability.

[49]

TÍTULO / TITLE: - Risk of hemoptysis in patients with resected squamous cell and other high-risk lung cancers treated with adjuvant bevacizumab.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Chemother Pharmacol. 2013 Aug;72(2):453-61. doi: 10.1007/s00280-013-2219-5. Epub 2013 Jun 28.

●● [Enlace al texto completo \(gratis o de pago\) 1007/s00280-013-2219-](#)

[5](#)

AUTORES / AUTHORS: - Hellmann MD; Chaft JE; Rusch V; Ginsberg MS; Finley DJ; Kris MG; Price KA; Azzoli CG; Fury MG; Riely GJ; Krug LM; Downey RJ; Bains MS; Sima CS; Rizk N; Travis WD; Rizvi NA; Paik PK

INSTITUCIÓN / INSTITUTION: - Thoracic Oncology Service, Division of Solid Tumor Oncology, Department of Medicine, Memorial Sloan-Kettering Cancer Center, Weill Cornell Medical School, 300 East 66th Street, New York, NY, 10065, USA.

RESUMEN / SUMMARY: - **PURPOSE:** Bevacizumab improves survival in lung adenocarcinomas. The potential anti-tumor benefit of bevacizumab in squamous cell lung cancers (SQCLCs) is unknown because bevacizumab is contraindicated in patients with advanced SQCLC due to an increased risk of hemoptysis. The risk of hemoptysis may be eliminated in patients with resected SQCLCs. We evaluated the safety of adjuvant bevacizumab in patients with resected SQCLCs and other lung cancers at high risk of hemoptysis.

METHODS: As part of a prospective, phase II trial, patients with lung cancers at

high risk of hemoptysis (defined by SQCLC histology, tumor near the central blood vessels, or history of hemoptysis) were treated with adjuvant bevacizumab following neo-adjuvant chemotherapy and complete surgical resection. Bevacizumab 15 mg/kg was given once every 3 weeks for up to 1 year. Patients were followed for safety and survival. RESULTS: Thirteen patients with high-risk features were treated: 7 patients had SQCLC, 3 had central tumors, and 3 had previous hemoptysis. No hemoptysis of any grade was seen following treatment with bevacizumab. Five of 13 patients experienced grade 1 bleeding (epistaxis, gum bleeding). Hypertension and lymphopenia were seen. CONCLUSIONS: In a cohort of patients with resected lung cancers at high risk of hemoptysis, including those with SQCLC, treatment with adjuvant bevacizumab did not result in hemoptysis of any grade.

[50]

TÍTULO / TITLE: - Development of radiation pneumopathy and generalised radiological changes after radiotherapy are independent negative prognostic factors for survival in non-small cell lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Radiother Oncol. 2013 May 29. pii: S0167-8140(13)00222-3. doi: 10.1016/j.radonc.2013.04.024.

●● Enlace al texto completo (gratis o de pago)

[1016/j.radonc.2013.04.024](#)

AUTORES / AUTHORS: - Farr KP; Khalil AA; Knap MM; Moller DS; Grau C

INSTITUCIÓN / INSTITUTION: - Department of Oncology, Aarhus University Hospital, Denmark. Electronic address: katherina@oncology.dk.

RESUMEN / SUMMARY: - BACKGROUND AND PURPOSE: To investigate the risk factors for radiation pneumopathy (RP) and survival rate of non-small cell lung cancer patients with RP and generalised interstitial lung changes (gen-ILC). MATERIAL AND METHODS: A total of 147 consecutive patients receiving curative radiotherapy were analysed. RP was graded according to Common Terminology Criteria for Adverse Events v. 3. Computed tomography images were assessed for the presence of gen-ILC after radiotherapy. Univariate and multivariate analyses were performed to identify significant factors. RESULTS: Median follow-up was 16.2 months (range 1.4-58.6). Radiological changes after radiotherapy were confined to high dose irradiation volume in 111 patients, while 31 patients developed gen-ILC. Dosimetric parameters and level of C-reactive protein before radiotherapy were significantly associated with severe RP. Development of gen-ILC ($p=0.008$), as well as severe RP ($p=0.03$) had significant negative impact on patients' survival. These two factors remained significant in the multivariate analysis. CONCLUSIONS: Severe radiation pneumopathy and generalised radiographic changes were significant independent prognostic factors for survival. More studies on pathophysiology of

radiation induced damage are necessary to fully understand the mechanisms behind it.

[51]

TÍTULO / TITLE: - Tumor Histology Predicts Patterns of Failure and Survival in Patients with Brain Metastases from Lung Cancer Treated with Gamma Knife Radiosurgery.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Neurosurgery. 2013 Jul 9.

●● Enlace al texto completo (gratis o de pago)

[1227/NEU.0000000000000072](#)

AUTORES / AUTHORS: - Griff Kuremsky J; Urbanic JJ; Jeff Petty W; Lovato JF; Bourland JD; Tatter SB; Ellis TL; McMullen KP; Shaw EG; Chan MD

INSTITUCIÓN / INSTITUTION: - 1Department of Radiation Oncology, Wake Forest University, Winston-Salem, NC 2Department of Internal Medicine, Hematology and Oncology, Wake Forest University, Winston-Salem, NC 3Department of Neurosurgery, Wake Forest University, Winston-Salem, NC 4Public Health Sciences, Wake Forest University, Winston-Salem, NC.

RESUMEN / SUMMARY: - **BACKGROUND:** We review our experience with lung cancer patients with newly diagnosed brain metastases treated with Gamma Knife radiosurgery (GKRS) to determine if tumor histology predicts patient outcomes. **OBJECTIVE:** To determine if histology predicts outcomes **METHODS:** Between 7/1/2000 and 12/31/2010, 271 patients with brain metastases from primary lung cancer were treated with GKRS at our institution. 44 squamous cell carcinomas (SCC), 31 small cell carcinomas (SCLC), and 138 adenocarcinoma (ACA) patients were included in our study. 47 patients with insufficient pathology to determine subtype were excluded. No non-small cell lung cancer (NSCLC) patients received whole brain radiation therapy (WBRT) prior to their GK, and SCLC patients were allowed to have prophylactic cranial irradiation, but no previously known brain metastases. A median of two lesions were treated per patient with median marginal dose of 20 Gy. **RESULTS:** Median survival was 10.2 months for ACA, 5.9 months for SCLC, and 5.3 months for SCC (p=0.008). 1 year local control was 86%, 86%, and 54% for ACA, SCC, and SCLC, respectively (p=0.027). 1 year distant failure was 35%, 63%, and 65% for ACA, SCC, and SCLC, respectively (p=0.057). Likelihood of dying from neurologic death was 29%, 36%, and 55% for ACA, SCC, and SCLC, respectively (p=0.027). Median time to WBRT was 11 months for SCC, and 24 months for ACA (p=0.04). Multivariate analysis confirmed SCLC histology as a significant predictor of worsened local control (HR 6.46, p=0.025) and distant failure (HR 3.32, p=0.0027). For NSCLC histologies, SCC predicted for earlier time to salvage WBRT (HR 2.552, p=0.01) and worsened overall survival (HR 1.77, p<0.0121). **CONCLUSION:** Histologic subtype of lung

cancer appears to predict for outcomes. Future trials and prognostic indices should take these histology-specific patterns into account.

[52]

TÍTULO / TITLE: - High-intensity training and cardiopulmonary exercise testing in patients with chronic obstructive pulmonary disease and non-small-cell lung cancer undergoing lobectomy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cardiothorac Surg. 2013 Jul 26.

●● Enlace al texto completo (gratis o de pago) [1093/ejcts/ezt375](#)

AUTORES / AUTHORS: - Stefanelli F; Meoli I; Cobuccio R; Curcio C; Amore D; Casazza D; Tracey M; Rocco G

INSTITUCIÓN / INSTITUTION: - Division of Pneumology, AORN Dei Colli 'Monaldi Hospital', Naples, Italy.

RESUMEN / SUMMARY: - **OBJECTIVES:** Peak VO₂, as measure of physical performance is central to a correct preoperative evaluation in patients with both non-small-cell lung cancer (NSCLC) and chronic obstructive pulmonary disease (COPD) because it is closely related both to operability criteria and the rate of postoperative complications. Strategies to improve peak VO₂, as a preoperative pulmonary rehabilitation programme (PRP), should be considered favourably in these patients. In order to clarify the role of pulmonary rehabilitation, we have evaluated the effects of 3-week preoperative high-intensity training on physical performance and respiratory function in a group of patients with both NSCLC and COPD who underwent lobectomy. **METHODS:** We studied 40 patients with both NSCLC and COPD, age < 75 years, TNM stages I-II, who underwent lobectomy. Patients were randomly divided into two groups (R and S): Group R underwent an intensive preoperative PRP, while Group S underwent only lobectomy. We evaluated peak VO₂ in all patients at Time 0 (T₀), after PRP/before surgery in Group R/S (T₁) and 60 days after surgery, respectively, in both groups (T₂). **RESULTS:** There was no difference between groups in peak VO₂ at T₀, while a significant difference was observed both at T₁ and T₂. In Group R, peak VO₂ improves significantly from T₀ to T₁: 14.9 +/- 2.3-17.8 +/- 2.1 ml/kg/min +/- standard deviation (SD), P < 0.001 (64.5 +/- 16.5-76.1 +/- 14.9% predicted +/- SD, P < 0.05) and deteriorates from T₁ to T₂: 17.8 +/- 2.1-15.1 +/- 2.4, P < 0.001 (76.1 +/- 14.9-64.6 +/- 15.5, P < 0.05), reverting to a similar value to that at T₀, while in Group S peak VO₂ did not change from T₀ to T₁ and significantly deteriorates from T₁ to T₂: 14.5 +/- 1.2-11.4 +/- 1.2 ml/kg/min +/- SD, P < 0.00001 (60.6 +/- 8.4-47.4 +/- 6.9% predicted +/- SD, P < 0.00001). **CONCLUSIONS:** PRP was a valid preoperative strategy to improve physical performance in patients with both NSCLC and COPD and this advantage was also maintained after surgery.

[53]

TÍTULO / TITLE: - Health-Related Quality of Life and Utility in Patients with Advanced Non-Small-Cell Lung Cancer: A Prospective Cross-Sectional Patient Survey in a Real-World Setting.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):997-1003.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1097/JTO.0b013e318299243b](#)

AUTORES / AUTHORS: - Chouaid C; Agulnik J; Goker E; Herder GJ; Lester JF; Vansteenkiste J; Finfern HW; Lungershausen J; Eriksson J; Kim K; Mitchell PL

INSTITUCIÓN / INSTITUTION: - *Service de Pneumologie, Centre Hospitalier Intercommunal Creteil, Paris, France; daggerDivision of Pulmonary Diseases, Department of Medicine, Jewish General Hospital, Montreal, Quebec, Canada; double daggerDepartment of Medical Oncology, Ege University, Izmir, Turkey; section signDepartment of Pulmonary Diseases, St. Antonius Ziekenhuis, Nieuwegein, The Netherlands; ||Oncology, Velindre Hospital, Cardiff, Wales, United Kingdom; paragraph signRespiratory Oncology Unit (Pulmonology), University Hospital Leuven, Leuven, Belgium; #Boehringer-Ingelheim Pharmaceuticals Inc., Ingelheim am Rhein, Germany; **Boehringer-Ingelheim GmbH, Ingelheim, Germany; daggerdaggerOptumInsight Life Sciences, Stockholm, Sweden; and double daggerdouble daggerDepartment of Medical Oncology, Olivia Newton-John Cancer and Wellness Centre, Austin Health, Victoria, Australia.

RESUMEN / SUMMARY: - **BACKGROUND:** Non-small-cell lung cancer (NSCLC) has a significant impact on patients' health-related quality of life (HRQOL). This study aimed to measure health state utility values representing the individual's preferences for specific health-related outcomes in advanced NSCLC patients and to assess predictive parameters. **METHODS:** We conducted a prospective quality-of-life survey on advanced NSCLC patients in 25 hospitals in Europe, Canada, Australia, and Turkey. HRQOL was assessed using the EuroQol (EQ-5D) questionnaire and EQ-5D utility and EQ-visual analog (EQ-VAS) scores were estimated. **RESULTS:** Three hundred nineteen patients were recruited of which 263 had evaluable data. Mean utility for progression-free (PF) patients on first-, second-, and third-/fourth-line treatment was 0.71 (SD = 0.24), 0.74 (SD = 0.18), and 0.62 (SD = 0.29), respectively. Mean utility for patients with progressive disease (PD) while on first-, second- and third-/fourth-line treatment was 0.67 (SD = 0.2), 0.59 (SD = 0.34), and 0.46 (SD = 0.38), respectively. Overall, patients with PD had lower mean utility scores than PF patients (0.58 versus 0.70). The results of the EQ-VAS showed that the score decreased with later treatment lines. Patients with PD had a 10-point decrease in VAS scores compared with PF patients (53.7 versus 66.6). The regression analysis revealed that stage IV disease, higher lines of treatment, and health state were significant predictors of utility at the 10% level. **CONCLUSION:** The results presented indicate a substantial impact of lung cancer on patients' HRQOL, with

stage IV disease, line of treatment, and PD, resulting in considerable deterioration of utility. The values obtained here will inform evaluations of cost-utility for NSCLC therapies.

[54]

TÍTULO / TITLE: - Predictive and prognostic factors in second- and third-line erlotinib treatment in NSCLC patients with known status of the EGFR gene.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Rep. 2013 Jun 19. doi: 10.3892/or.2013.2553.

●● Enlace al texto completo (gratis o de pago) [3892/or.2013.2553](#)

AUTORES / AUTHORS: - Krawczyk P; Kowalski DM; Wojas Krawczyk K; Szczyrek M; Mlak R; Rolski A; Szudy A; Kieszko R; Winiarczyk K; Milanowski J; Krzakowski M

INSTITUCIÓN / INSTITUTION: - Department of Pneumology, Oncology and Allergology, Medical University of Lublin, Lublin, Poland.

RESUMEN / SUMMARY: - Erlotinib is a reversible tyrosine kinase inhibitor of epidermal growth factor receptor (TKI EGFR). In Poland, as of July 2012, it is used in the treatment only of patients with non-small cell lung cancer (NSCLC) and with EGFR mutation gene after standard chemotherapy failure. The effectiveness of erlotinib in second- or third-line treatment of NSCLC patients without EGFR activating mutation gene remains debatable. Clinical trial results indicated that TKI EGFR showed an efficacy of 7080% in patients with EGFR mutations, while the clinical response to treatment among unselected Caucasian patients is only 10%. The present study was conducted in a group of 71 patients with inoperable, locally advanced or metastatic NSCLC treated with erlotinib as the second- or third-line therapy. Molecular tests (examination of EGFR mutation and gene amplification) were carried out retrospectively. Objective response rate, overall survival (OS) and progression-free survival (PFS) were calculated. Effects of clinical and molecular factors including the presence of EGFR mutations, EGFR gene amplification, patient performance status, rash, smoking status, time from diagnosis to start of therapy, weight loss and the serum LDH levels were analyzed. An objective response in the form of partial response occurred in only 5 patients (7%), who carried EGFR gene mutation. Median time to PFS for the entire group of patients was 1.5 months and median OS was 10 months. The strongest factors increasing the risk of progression in patients treated with erlotinib were the absence of activating mutations in the EGFR gene (6fold increased risk) and no treatment-related rash (4.5fold increased risk). The most important factors affecting the risk of early mortality were poor performance status (HR 37.344; P>0.0001), no treatment-related rash (HR 14.9348; P=0.0002) and a short response time on the first-line chemotherapy (HR 9.519; P=0.0445).

[55]

TÍTULO / TITLE: - Radiation therapy for metastatic non-small-cell lung cancer: when to bring in palliative care?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Jul 20;31(21):2758-9. doi: 10.1200/JCO.2013.49.1233. Epub 2013 Jun 10.

●● Enlace al texto completo (gratis o de pago)

[1200/JCO.2013.49.1233](#)

AUTORES / AUTHORS: - Vordermark D

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Martin Luther University Halle-Wittenberg, Dryanderstr. 4, 06110 Halle/Saale, Germany; dirk.vordermark@medizin.uni-halle.de.

[56]

TÍTULO / TITLE: - Clinical Characteristics of Patients With Solitary Pulmonary Mass After Radical Treatment for Primary Cancers: Pulmonary Metastasis or Second Primary Lung Cancer?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Invest. 2013 Jun 11.

●● Enlace al texto completo (gratis o de pago)

[3109/07357907.2013.800092](#)

AUTORES / AUTHORS: - Ge J; Gou HF; Chen Y; Cheng K; Li LH; Dong H; Gao F; Zhao F; Men HT; Li Q; Qiu M; Su JM; Xu F; Bi F; Liu JY

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Cancer Center, The State Key Laboratory of Biotherapy, West China Hospital, West China Medical School, Sichuan University, Chengdu, Sichuan Province, China.

RESUMEN / SUMMARY: - We identified clinical characteristics of 30 pulmonary metastasis (PM) patients and 29 second primary lung cancer (SPLC) patients with feature of solitary pulmonary mass (SPM) after radical treatment of prior cancers. 6.7% and 44.8% patients presented with centrally located SPM and the median event-free durations were 33 and 72 months in PM and SPLC groups, respectively. PM was more likely to be found in prior cancers with stage III. In conclusion, the location of SPM, the event-free duration and the prior tumor staging were important features for differentiating SPLC from PM among patients with SPM after prior cancers.

[57]

- CASTELLANO -

TÍTULO / TITLE: Reperage des expositions professionnelles chez les patients atteints de cancers bronchopulmonaires.

TÍTULO / TITLE: - Identification of occupational exposures among patients with lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Bull Cancer. 2013 Aug 1;100(7-8):661-670.

●● Enlace al texto completo (gratis o de pago) [1684/bdc.2013.1783](#)

AUTORES / AUTHORS: - Cellier C; Charbotel B; Carretier J; Rebattu P; Fayette J; Perol M; Claude L; Philip T; Fervers B

INSTITUCIÓN / INSTITUTION: - Centre Leon-Berard, unite Cancer et Environnement, 28, rue Laennec, 69373 Lyon cedex 08, France.

RESUMEN / SUMMARY: - Despite the rising number of lung cancers recognized as occupational disease, occupational lung cancers are still under-reported. To improve the recognition of occupational lung cancer, we implemented at the Leon-Berard Cancer Centre, a questionnaire-based process to identify occupational exposures in these patients and improve compensation. Between January 2010 and December 2011, 91 lung cancer patients responded to a questionnaire. An “occupational cancer” consultation was proposed to patients reporting exposure to carcinogens or jobs with risk of exposure. Fifty-one patients were seen in consultation (34 following the questionnaire and 17 directly addressed by the oncologist). A suspicion of high or average imputability was identified in 31 (60.8%) patients and a compensation process seemed possible for 27 (61.4%). Asbestos was the most common carcinogen identified. Among 17 compensation processes engaged, 12 succeeded and one is ongoing. The complexity of the administrative process seems to be an obstacle for patients and perpetuates inequality. The implementation of our approach increased the identification and the compensation of occupational lung cancer. Our approach responds to the objectives of the National Cancer Plan and helps to improve the overall care of patients with cancer. This approach has been awarded by the national label in 2011 “Year of the patients and their rights”.

[58]

TÍTULO / TITLE: - Tumor VEGF:VEGFR2 autocrine feed-forward loop triggers angiogenesis in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Invest. 2013 Jul 1;123(7):3183. doi: 10.1172/JCI70810. Epub 2013 Jul 1.

●● Enlace al texto completo (gratis o de pago) [1172/JCI70810](#)

AUTORES / AUTHORS: - Chatterjee S; Heukamp LC; Siobal M; Schottle J; Wieczorek C; Peifer M; Frasca D; Koker M; Konig K; Meder L; Rauh D; Buettner R; Wolf J; Brekken RA; Neumaier B; Christofori G; Thomas RK; Ullrich RT

[59]

TÍTULO / TITLE: - Increased CD14HLA-DR myeloid-derived suppressor cells correlate with extrathoracic metastasis and poor response to chemotherapy in non-small cell lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Immunol Immunother. 2013 Jun 13.

●● Enlace al texto completo (gratis o de pago) [1007/s00262-013-1450-](#)

[6](#)

AUTORES / AUTHORS: - Huang A; Zhang B; Wang B; Zhang F; Fan KX; Guo YJ

INSTITUCIÓN / INSTITUTION: - Cancer Center, Chinese PLA General Hospital, Beijing, 100853, People's Republic of China.

RESUMEN / SUMMARY: - Accumulating evidence has demonstrated that myeloid-derived suppressor cells (MDSCs), a heterogeneous population of cells, play an important role in the subversion, inhibition, and downregulation of the immune response to cancer. However, the characteristics of these cells, particularly clinical relevance, in malignant tumors remain unclear due to a lack of specific markers. In this study, we characterized peripheral CD14+HLA-DR-/low cells, a new human MDSC subpopulation, in 89 patients with non-small cell lung cancer (NSCLC). As expected, both frequency and absolute number of CD14+HLA-DR-/low cells were significantly increased in the peripheral blood of NSCLC patients compared with that of the healthy controls and indicated an association with metastasis, response to chemotherapy, and progression-free survival. These cells showed decreased expression of CD16 and CD86 compared with HLA-DR+ monocytes. Unlike classical monocytes, these populations showed significantly decreased allostimulatory activity and showed the ability to inhibit autologous T cell proliferation and IFN-gamma production in a cell-contact-dependent manner. Furthermore, we demonstrated that CD14+HLA-DR-/low cells expressed the NADPH oxidase component gp91phox and generated high level of reactive oxygen species (ROS). Moreover, inactivation of ROS reversed their immunosuppressive capacity on T cell response. These results prove, for the first time, the existence of ROS-producing CD14+HLA-DR-/low myeloid-derived suppressor cells in NSCLC patients, which mediate tumor immunosuppression and might thus represent a potential target for therapeutic intervention.

[60]

TÍTULO / TITLE: - Crizotinib-induced acute interstitial lung disease in a patient with EML4-ALK positive non-small cell lung cancer and chronic interstitial pneumonia.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Acta Oncol. 2013 Jun 11.

●● Enlace al texto completo (gratis o de pago)

[3109/0284186X.2013.802838](#)

AUTORES / AUTHORS: - Watanabe N; Nakahara Y; Taniguchi H; Kimura T; Kondoh Y; Kataoka K; Sakamoto K

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine and Allergy, Tosei General Hospital, Seto, Aichi, Japan.

[61]

TÍTULO / TITLE: - RECIST 1.1 in NSCLC Patients With EGFR Mutations Treated With EGFR Tyrosine Kinase Inhibitors: Comparison With RECIST 1.0.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - AJR Am J Roentgenol. 2013 Jul;201(1):W64-71. doi: 10.2214/AJR.12.9668.

●● [Enlace al texto completo \(gratis o de pago\) 2214/AJR.12.9668](#)

AUTORES / AUTHORS: - Nishino M; Cardarella S; Jackman DM; Ramaiya NH; Rabin MS; Hatabu H; Janne PA; Johnson BE

INSTITUCIÓN / INSTITUTION: - 1 Department of Imaging Dana-Farber Cancer Institute, Harvard Medical School, 450 Brookline Ave., Boston MA 02215.

RESUMEN / SUMMARY: - OBJECTIVE. Response Evaluation Criteria in Solid Tumors (RECIST) 1.1 has been rapidly accepted in clinical trials as a standard measure to assess tumor response to therapy and is expected to improve response assessment, especially in genomically defined patients. The impact of RECIST 1.1 was compared with RECIST 1.0 in non-small cell lung cancer (NSCLC) patients with sensitizing epidermal growth factor receptor (EGFR) mutations treated with EGFR tyrosine kinase inhibitors. MATERIALS AND METHODS. Seventy patients with advanced NSCLC harboring sensitizing EGFR mutations treated with a first-line EGFR tyrosine kinase inhibitor were retrospectively studied. Tumor measurements and response assessment were performed using RECIST 1.0 and RECIST 1.1. The number of target lesions, the percentage change at the initial follow-up, best response, and time to progression were compared between RECIST 1.1 and RECIST 1.0. RESULTS. The number of target lesions identified using RECIST 1.1 was significantly lower compared with that using RECIST 1.0 (mean, 2.7 and 2.0, respectively; $p < 0.0001$; paired Student t test), with a decrease in 31 patients (44%). The initial proportional changes of the target lesion measurements had high correlation between the two criteria ($R(2) = 0.8070$), with concordant response assessment in 66 patients (94%). The best response showed almost perfect agreement ($\kappa = 0.970$). Time to progression (TTP) did not differ between the two criteria in 52 patients (74%), was longer by RECIST 1.1 in 15 patients (21%), and was shorter by RECIST 1.1 in three patients (4%). CONCLUSION. RECIST 1.1 provided highly concordant response assessment with a decreased number of target lesions compared with RECIST 1.0 in advanced NSCLC patients harboring sensitizing EGFR mutations treated with an EGFR tyrosine kinase inhibitor. RECIST 1.1 altered TTP in 25% of patients compared with RECIST 1.0.

[62]

TÍTULO / TITLE: - Clinical significance of survivin and VEGF mRNA detection in the cell fraction of the peripheral blood in non-small cell lung cancer patients before and after surgery.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Aug;81(2):273-9. doi: 10.1016/j.lungcan.2013.05.005. Epub 2013 Jun 5.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.005](#)

AUTORES / AUTHORS: - Tang XP; Li J; Yu LC; Chen YC; Shi SB; Zhu LR; Chen P

INSTITUCIÓN / INSTITUTION: - Department of Pulmonary Medicine, Affiliated Hospital of Jiangsu University, Zhenjiang 212001, China.

RESUMEN / SUMMARY: - **PURPOSE:** The aim of this study was to evaluate the predictive and prognostic value of peripheral blood survivin and VEGF mRNA expression levels in non-small cell lung cancer (NSCLC) patients. **PATIENTS AND METHODS:** Fifty-eight patients with stage I-IIIa NSCLC who underwent surgical resection were enrolled in this study. Thirty-six patients with benign lung disease (BLD) entered this study as control group. Quantitative real-time PCR was used to detect survivin and VEGF mRNA levels in the cell fraction of peripheral blood in NSCLC patients before and after surgery and BLD patients. The relationship between blood survivin and VEGF mRNA levels and patients clinicopathologic parameters and prognostic factors were investigated. **RESULTS:** The levels of survivin and VEGF mRNA were decreased significantly after surgery in NSCLC patients ($P=0.024$ and $P=0.012$ respectively). Tumor recurrence was significantly more frequent in NSCLC patients with survivin and VEGF mRNA positivity postoperation than in patients without ($P=0.003$ and $P=0.006$, respectively). Patients with survivin or VEGF mRNA positivity postoperation had markedly shorter disease-free survival (DFS) and overall survival (OS) than patients without ($P=0.023$ and $P=0.016$ for survivin; $P=0.031$ and $P=0.025$ for VEGF, respectively). Multivariate analysis showed that survivin positivity preoperation ($P=0.026$, $P=0.041$, respectively) and postoperation ($P=0.003$, $P=0.005$, respectively) and VEGF mRNA positivity postoperation ($P=0.007$, $P=0.009$, respectively) were independently associated with DFS and OS. **CONCLUSION:** Although the levels of survivin and VEGF mRNA were decreased significantly after surgery, postoperative detections of survivin and VEGF mRNA by quantitative real-time PCR could be used as tools to monitor tumor recurrence and predict prognosis.

[63]

TÍTULO / TITLE: - Impact of family history of cancer on the incidence of mutation in epidermal growth factor receptor gene in non-small cell lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Aug;81(2):162-6. doi: 10.1016/j.lungcan.2013.05.004. Epub 2013 May 30.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.004](#)

AUTORES / AUTHORS: - He Y; Li S; Ren S; Cai W; Li X; Zhao C; Li J; Chen X; Gao G; Li W; Zhou F; Zhou C

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Shanghai Pulmonary Hospital, Tongji University Medical School Cancer Institute, Tongji University School of Medicine, No. 507 Zhengmin Road, Shanghai 200433, People's Republic of China. Electronic address: 2250601@qq.com.

RESUMEN / SUMMARY: - BACKGROUND: Epidermal growth factor receptor (EGFR) activating mutation is an important predictive biomarker of EGFR tyrosine kinase inhibitors (TKIs) in non-small cell lung cancer (NSCLC), while family history of cancer also plays an important role in the neoplasia of lung cancer. This study aimed to investigate the association between family history of cancer and EGFR mutation status in NSCLC population. METHODS: From February 2008 to May 2012, 538 consecutive NSCLC patients with known EGFR mutation status were included into this study. Amplification refractory mutation system (ARMS) method was used to detect EGFR mutation. The associations between EGFR mutation and family history of cancer were evaluated using logistic regression models. RESULTS: EGFR activating mutation was found in 220 patients and 117 patients had family cancer histories among first-degree relatives. EGFR mutation was more frequently detected in adenocarcinoma patients ($p < 0.001$), never-smoker ($p < 0.001$) and with family history of cancer ($p = 0.031$), especially who had family history of lung cancer ($p = 0.008$). In multivariate analysis, the association of EGFR mutation with family history of cancer also existed ($p = 0.027$). CONCLUSIONS: NSCLC patients with family history of cancer, especially family history of lung cancer, might have a significantly higher incidence of EGFR activating mutation.

[64]

TÍTULO / TITLE: - Phase II study of pemetrexed and cisplatin plus cetuximab followed by pemetrexed and cetuximab maintenance therapy in patients with advanced nonsquamous non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jun 19. pii: S0169-5002(13)00222-5. doi: 10.1016/j.lungcan.2013.05.010.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.010](#)

AUTORES / AUTHORS: - Schmid-Bindert G; Gebbia V; Mayer F; Arriola E; Marquez-Medina D; Syrigos K; Biesma B; Leschinger MI; Frimodt-Moller B; Ripoche V; Myrand SP; Nguyen TS; Hozak RR; Zimmermann A; Visseren-Grul C; Schuette W

INSTITUCIÓN / INSTITUTION: - University Medical Center Mannheim of Heidelberg University, Mannheim, Germany. Electronic address: gerald.schmid-bindert@medma.uni-heidelberg.de.

RESUMEN / SUMMARY: - **OBJECTIVES:** The aim was to determine if combined pemetrexed, cisplatin, and cetuximab was efficacious and safe as first-line treatment in advanced nonsquamous non-small cell lung cancer (NSCLC). **PATIENTS AND METHODS:** In this single-arm, multicenter clinical trial, patients with Stage IIIB/IV nonsquamous NSCLC received first-line therapy consisting of pemetrexed (500mg/m²) and cisplatin (75mg/m²) on Day 1 (21-day cycles) plus weekly cetuximab (400mg/m² loading dose, then 250mg/m²) for 4-6 cycles. Non-progressing patients received maintenance therapy consisting of pemetrexed and cetuximab as above until disease progression. All patients received vitamin supplementation, dexamethasone, and antihistamine prophylaxis. The primary endpoint was objective response rate (ORR). Secondary endpoints were progression-free survival (PFS), 1-year survival rate, translational research (TR) and safety. **RESULTS:** Of the 113 patients receiving study drug, 109 were protocol-qualified. All patients completed ≥ 1 cycle of induction, and 51 (45%) and 49 (43%) patients completed ≥ 1 cycle of maintenance with pemetrexed and cetuximab, respectively. The ORR (n=109) was 38.5% (80% confidence interval [CI], 32.3-45.1%), all partial responses. Median PFS was 5.8 (80% CI, 4.4-6.7) months. One-year survival rate was 45% (80% CI, 39-51%). In exploratory analyses, there was some preliminary evidence of potential prognostic relationships with efficacy outcomes for epidermal growth factor receptor and thyroid transcription factor-1 protein expression, but not for KRAS mutation or for thymidylate synthase or folate receptor-alpha protein expression. Seventy-three (64.6%) patients had study drug-related Grade ≥ 3 adverse events (AEs). Drug-related serious AEs were reported in 31 (27.4%) patients. There were 3 (2.7%) potentially drug-related deaths on-study or within 30 days of follow up. **CONCLUSION:** Pemetrexed, cisplatin, and cetuximab appeared efficacious and tolerable in advanced nonsquamous NSCLC patients. The TR outcomes are hypothesis-generating given the study's size and nonrandomized nature.

[65]

TÍTULO / TITLE: - Vorinostat and bortezomib as third-line therapy in patients with advanced non-small cell lung cancer: a Wisconsin Oncology Network Phase II study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Invest New Drugs. 2013 Jun 1.

●● Enlace al texto completo (gratis o de pago) [1007/s10637-013-9980-](https://doi.org/10.1007/s10637-013-9980-5)

[5](#)

AUTORES / AUTHORS: - Hoang T; Campbell TC; Zhang C; Kim K; Kolesar JM; Oettel KR; Blank JH; Robinson EG; Ahuja HG; Kirschling RJ; Johnson PH; Huie MS; Wims ME; Larson MM; Hernan HR; Traynor AM

INSTITUCIÓN / INSTITUTION: - University of Wisconsin Carbone Cancer Center, Madison, WI, USA, txh@medicine.wisc.edu.

RESUMEN / SUMMARY: - Introduction The primary objective of this phase II trial was to evaluate the efficacy and tolerability of vorinostat and bortezomib as third-line therapy in advanced non-small cell lung cancer (NSCLC) patients. Methods Eligibility criteria included recurrent/metastatic NSCLC, having received 2 prior systemic regimens, and performance status 0-2. Patients took vorinostat 400 mg PO daily days 1-14 and bortezomib 1.3 mg/m² IV day 1, 4, 8 and 11 in a 21-day cycle. Primary endpoint was 3-month progression free survival (3m-PFS), with a goal of at least 40 % of patients being free of progression at that time point. This study followed a two-stage minimax design. Results Eighteen patients were enrolled in the first stage. All patients had two prior lines of treatment. Patients received a median of two treatment cycles (range: 1-6) on study. There were no anti-tumor responses; stable disease was observed in 5 patients (27.8 %). Median PFS was 1.5 months, 3m-PFS rate 11.1 %, and median overall survival 4.7 months. The most common grade 3/4 toxicities were thrombocytopenia and fatigue. Two patients who had baseline taxane-related grade 1 peripheral neuropathy developed grade 3 neuropathy. The study was closed at its first interim analysis for lack of efficacy. Conclusions Bortezomib and vorinostat displayed minimal anti-tumor activity as third-line therapy in NSCLC. We do not recommend this regimen for further investigation in unselected patients.

[66]

TÍTULO / TITLE: - Safety and efficacy analysis by histology of weekly nab-paclitaxel in combination with carboplatin as first-line therapy in patients with advanced non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Oncol. 2013 Jul 10.

●● Enlace al texto completo (gratis o de pago) [1093/annonc/mdt235](https://doi.org/10.1093/annonc/mdt235)

AUTORES / AUTHORS: - Socinski MA; Okamoto I; Hon JK; Hirsh V; Dakhil SR; Page RD; Orsini J; Yamamoto N; Zhang H; Renschler MF

INSTITUCIÓN / INSTITUTION: - Division of Hematology/Oncology, University of Pittsburgh Cancer Institute, Pittsburgh, USA.

RESUMEN / SUMMARY: - BACKGROUND: This analysis compared the efficacy and safety outcomes by histology of nab-paclitaxel (nab-P) plus carboplatin © versus solvent-based paclitaxel (sb-P) plus C in patients with advanced non-small-cell lung cancer (NSCLC) based on preplanned stratification factors

specified in the phase III trial protocol. PATIENTS AND METHODS: Patients with untreated stage III/IV NSCLC received 100 mg/m² nab-P weekly and C (area under the curve, AUC = 6) every 3 weeks (q3w) or 200 mg/m² sb-P plus C (AUC = 6) q3w. Primary end point was objective overall response rate (ORR). RESULTS: nab-P/C versus sb-P/C produced a significantly higher ORR (41% versus 24%; response rate ratio [RRR] 1.680; P < 0.001) in patients with squamous cell (SCC) NSCLC. For nab-P/C versus sb-P/C, ORRs were 26% versus 27% (RRR 0.966; P = 0.814) in patients with adenocarcinoma, 33% versus 15% (RRR 2.167; P = 0.323) in patients with large cell carcinoma (LC), and 24% versus 15% (RRR 1.593; P = 0.372) in patients with not otherwise specified histology. Median overall survival for nab-P/C versus sb-P/C in patients with SCC was 10.7 versus 9.5 months (HR 0.890; P = 0.310), and 12.4 versus 10.6 months (HR 1.208; P = 0.721) for patients with LC. nab-P/C produced significantly (P < 0.05) less grade 3/4 neuropathy and arthralgia, whereas sb-P/C produced less thrombocytopenia and anemia. CONCLUSION(S): First-line nab-P/C demonstrated a favorable risk-benefit profile in patients with NSCLC regardless of histology.

[67]

TÍTULO / TITLE: - European randomized lung cancer screening trials: Post NLST.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Surg Oncol. 2013 Jul 25. doi: 10.1002/jso.23383.

●● Enlace al texto completo (gratis o de pago) [1002/jso.23383](#)

AUTORES / AUTHORS: - Field JK; van Klaveren R; Pedersen JH; Pastorino U; Paci E; Becker N; Infante M; Oudkerk M; de Koning HJ

INSTITUCIÓN / INSTITUTION: - The University of Liverpool Cancer Research Centre, Liverpool, UK.

RESUMEN / SUMMARY: - Overview of the European randomized lung cancer CT screening trials (EUCT) is presented with regard to the implementation of CT screening in Europe; post NLST. All seven principal investigators completed a questionnaire on the epidemiological, radiological, and nodule management aspects of their trials at August 2010, which included 32,000 people, inclusion of UKLS pilot trial will reach 36,000. An interim analysis is planned, but the final mortality data testing is scheduled for 2015. J. Surg. Oncol. © 2013 Wiley Periodicals, Inc.

[68]

TÍTULO / TITLE: - Influence of delays in diagnosis and treatment on survival in small cell lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Adv Exp Med Biol. 2013;788:355-62. doi: 10.1007/978-94-007-6627-3_48.

●● Enlace al texto completo (gratis o de pago) [1007/978-94-007-6627-3_48](https://doi.org/10.1007/978-94-007-6627-3_48)

AUTORES / AUTHORS: - Radzikowska E; Roszkowski-Sliz K; Chabowski M; Glaz P

INSTITUCIÓN / INSTITUTION: - Third Department of Lung Diseases, National Institute of Tuberculosis and Lung Diseases, 26 Plocka St, 01-138, Warsaw, Poland, e.radzikowska@wp.pl.

RESUMEN / SUMMARY: - The purpose of this study was to evaluate the influence on survival of delays in the diagnosis and treatment in an unselected population of small cell lung (SCLC) patients. Demographic and disease data of 3,479 SCLC patients were registered in the National Tuberculosis and Lung Diseases Research Institute in Warsaw, Poland during 1995-1998. In 50 % of patients, treatment started within 78 days from the appearance of first symptom(s). The median delay was 30 days (mean 47 days) and the median referral delay to a specialist was 19 days (mean 36 days). Half of SCLC patients were diagnosed during 34 days (mean 55 days). The mean time elapse from the diagnosis to the onset of therapy was 30 days (median 6 days). The multivariate analysis revealed that male gender-HR (hazard ratio = 1.2), ECOG Performance Status of 2 (HR = 1.5) and 3 + 4 (HR = 2.4), and clinical stage III (HR = 1.3) and IV (HR = 1.9) of the disease were independent negative predictors of survival. The patients treated with surgery and combined modality treatment had a better prognosis than those treated with chemoradiotherapy (HR = 1.6), chemotherapy (HR = 2.5), symptomatically (HR = 4.0), or those who refused therapy (HR = 3.9). The delay in the diagnosis and treatment had no effect on survival. Interestingly, patients who were diagnosed faster (below 42 days) actually had a worse prognosis than those diagnosed later. We conclude that a prolonged workup of SCLC patients and an extended time for treatment onset have a positive influence on survival, which may likely have to do with the determination of disease stage and more targeted treatment.

[69]

TÍTULO / TITLE: - PET Imaging of Tumor Hypoxia Using 18F-Fluoroazomycin Arabinoside in Stage III-IV Non-Small Cell Lung Cancer Patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Nucl Med. 2013 Aug;54(8):1175-80. doi: 10.2967/jnumed.112.115014. Epub 2013 Jun 10.

●● Enlace al texto completo (gratis o de pago) [2967/jnumed.112.115014](https://doi.org/10.2967/jnumed.112.115014)

AUTORES / AUTHORS: - Bollineni VR; Kerner GS; Pruij J; Steenbakkers RJ; Wiegman EM; Koole MJ; de Groot EH; Willemsen AT; Luurtsema G; Widder J; Groen HJ; Langendijk JA

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands.

RESUMEN / SUMMARY: - Tumor hypoxia hampers the efficacy of radiotherapy because of its increased resistance to ionizing radiation. The aim of the present study was to estimate the potential added clinical value of the specific hypoxia tracer (18)F-fluoroazomycin arabinoside ((18)F-FAZA) over commonly used (18)F-FDG in the treatment of advanced-stage non-small cell lung cancer (NSCLC). **METHODS:** Eleven patients with stage III or stage IV NSCLC underwent (18)F-FDG and (18)F-FAZA PET before chemoradiotherapy. The maximum standardized uptake value (SUVmax) was used to depict (18)F-FDG uptake, and the tumor-to-background (T/B) ratio and tumor fractional hypoxic volume (FHV) were used to quantify hypoxia. The spatial correlation between (18)F-FDG and (18)F-FAZA uptake values was investigated using voxel-based analysis. Partial-volume correction was applied. **RESULTS:** All 11 patients showed clear uptake of (18)F-FAZA in the primary tumor. However, different patterns of (18)F-FDG and (18)F-FAZA uptake distributions were observed and varied widely among different tumors. No significant correlation was observed between (18)F-FDG SUVmax and (18)F-FAZA T/B ratio ($P = 0.055$). The median FHV of 1.4 was 48.4% (range, 5.0-91.5). A significant positive correlation was found between the (18)F-FAZA T/B ratio and FHV of 1.4 ($P < 0.001$). There was no correlation between the lesion size and FHV or between the (18)F-FDG SUVmax and FHV. The pattern of tumoral (18)F-FDG uptake was rather homogeneous, whereas (18)F-FAZA uptake was more heterogeneous, suggesting that (18)F-FAZA identifies hypoxic areas within metabolically active areas of tumor. A significant correlation between (18)F-FDG SUVmax and lesion size ($P = 0.002$) was observed. **CONCLUSION:** (18)F-FAZA PET imaging is able to detect heterogeneous distributions of hypoxic subvolumes out of homogeneous (18)F-FDG background in a clinical setting. Therefore, (18)F-FAZA might be considered a tool for guiding dose escalation to the hypoxic fraction of the tumor.

[70]

TÍTULO / TITLE: - Erlotinib resistance in lung cancer cells mediated by integrinbeta1/Src/Akt-driven bypass signaling.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Res. 2013 Jul 19.

●● Enlace al texto completo (gratis o de pago) [1158/0008-5472.CAN-12-4502](#)

AUTORES / AUTHORS: - Kanda R; Kawahara A; Watari K; Murakami Y; Sonoda K; Maeda M; Fujita H; Kage M; Uramoto H; Costa C; Kuwano M; Ono M

INSTITUCIÓN / INSTITUTION: - Department of Pharmaceutical Oncology, Kyushu University.

RESUMEN / SUMMARY: - EGFR kinase inhibitors including gefitinib and erlotinib exert potent therapeutic efficacy in non-small cell lung cancers harboring EGFR activating mutations. However, most patients ultimately develop resistance to

these drugs. Here we report a novel mechanism of acquired resistance the reversal of which could clinical outcomes. In erlotinib-resistant lung cancer cells harboring activating EGFR mutations that we established, there was increased expression of Src, integrinbeta1, alpha2, and alpha5 along with enhanced cell adhesion activity. Interestingly, RNAi-mediated silencing of integrinbeta1 restored erlotinib sensitivity and reduced activation of Src and Akt after erlotinib treatment. Further, Src silencing inhibited Akt phosphorylation and cell growth, with this inhibitory effect further augmented by erlotinib treatment. Increased expression of integrinbeta1, alpha5, and/or alpha2 was also observed in refractory tumor samples from lung cancer patients treated with erlotinib and/or gefitinib. Together, our findings identify the integrinbeta1/Src/Akt signaling pathway as a key mediator of acquired resistance to EGFR-targeted anticancer drugs.

[71]

TÍTULO / TITLE: - Selective tropism of seneca valley virus for variant subtype small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Natl Cancer Inst. 2013 Jul 17;105(14):1059-65. doi: 10.1093/jnci/djt130. Epub 2013 Jun 5.

●● Enlace al texto completo (gratis o de pago) [1093/jnci/djt130](#)

AUTORES / AUTHORS: - Poirier JT; Dobromilskaya I; Moriarty WF; Peacock CD; Hann CL; Rudin CM

INSTITUCIÓN / INSTITUTION: - Affiliation of authors: Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University, Baltimore, MD.

RESUMEN / SUMMARY: - We assessed the efficacy of Seneca Valley virus (SVV-001), a neuroendocrine cancer-selective oncolytic picornavirus, in primary heterotransplant mouse models of small cell lung cancer (SCLC), including three lines each of classic and variant SCLC. Half-maximal effective concentrations for cell lines derived from three variant heterotransplants ranged from 1.6×10^{-3} (95% confidence interval [CI] = 1×10^{-3} to 2.5×10^{-3}) to 3.9×10^{-3} (95% CI = 2.8×10^{-3} to 5.5×10^{-3}). Sustained tumor growth inhibition in vivo was only observed in variant lines (two-sided Student t test, $P < .005$ for each). Doses of 10^{14} vp/kg were able to completely and durably eradicate tumors in a variant SCLC heterotransplant model in two of six mice. Gene expression profiling revealed that permissive lines are typified by lower expression of the early neurogenic transcription factor ASCL1 and, conversely, by higher expression of the late neurogenic transcription factor NEUROD1. This classifier demonstrates a sensitivity of .89, specificity of .92, and accuracy of .91. The NEUROD1 to ASCL1 ratio may serve as a predictive biomarker of SVV-001 efficacy.

[72]

TÍTULO / TITLE: - Target volume for postoperative radiotherapy in non-small cell lung cancer: Results from a prospective trial.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Radiother Oncol. 2013 Jun 18. pii: S0167-8140(13)00243-0. doi: 10.1016/j.radonc.2013.05.023.

●● Enlace al texto completo (gratis o de pago)

[1016/j.radonc.2013.05.023](#)

AUTORES / AUTHORS: - Kepka L; Bujko K; Bujko M; Matecka-Nowak M; Salata A; Janowski H; Rogowska D; Cieslak-Zeranska E; Komosinska K; Zawadzka A

INSTITUCIÓN / INSTITUTION: - Department of Radiotherapy, The Maria Skłodowska-Curie Memorial Cancer Centre and Institute of Oncology, Warsaw, Poland. Electronic address: lucynak@coi.pl.

RESUMEN / SUMMARY: - BACKGROUND AND PURPOSE: A previous prospective trial reported that three-dimensional conformal postoperative radiotherapy (PORT) for pN2 NSCLC patients using a limited clinical target volume (CTV) had a late morbidity rate and pulmonary function that did not differ from those observed in pN1 patients treated with surgery without PORT. The aim of this study was to assess locoregional control and localization of failure in patients treated with PORT. MATERIALS AND METHODS: The pattern of locoregional failure was evaluated retrospectively in 151 of 171 patients included in the PORT arm. The CTV included the involved lymph node stations and those with a risk of invasion >10%. Competing risk analysis was used to assess the incidence of locoregional failure and its location outside the CTV. RESULTS: Overall survival at 5years was 27.1% with a median follow-up of 67months for 40 living patients. The 5-year cumulative incidence of locoregional failure was 19.4% (95% CI: 18.2-20.5%) including a failure rate of 2% (95% CI: 0-17%) in locations outside or at the border of the CTV. CONCLUSIONS: The use of limited CTV was associated with acceptable risk of geographic miss. Overall locoregional control was similar to that reported by other studies using PORT for pN2 patients.

[73]

TÍTULO / TITLE: - Maintenance Therapy for Advanced Lung Cancer: Who, What, and When?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Jul 8.

●● Enlace al texto completo (gratis o de pago)

[1200/JCO.2012.48.5201](#)

AUTORES / AUTHORS: - Gerber DE

INSTITUCIÓN / INSTITUTION: - Harold C. Simmons Cancer Center, University of Texas Southwestern Medical Center, Dallas, TX.

[74]

TÍTULO / TITLE: - ALK Rearrangements Are Mutually Exclusive with Mutations in EGFR or KRAS: An Analysis of 1,683 Patients with Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Cancer Res. 2013 Aug 1;19(15):4273-81. doi: 10.1158/1078-0432.CCR-13-0318. Epub 2013 May 31.

●● Enlace al texto completo (gratis o de pago) [1158/1078-0432.CCR-13-0318](#)

AUTORES / AUTHORS: - Gainor JF; Varghese AM; Ou SH; Kabraji S; Awad MM; Katayama R; Pawlak A; Mino-Kenudson M; Yeap BY; Riely GJ; Iafrate AJ; Arcila ME; Ladanyi M; Engelman JA; Dias-Santagata D; Shaw AT

INSTITUCIÓN / INSTITUTION: - Authors' Affiliations: Departments of Medicine and Pathology, Massachusetts General Hospital, Boston, Massachusetts; Departments of Medicine and Pathology, Memorial Sloan-Kettering Cancer Center, New York, New York; and Department of Medicine, University of California, Irvine, Orange, California.

RESUMEN / SUMMARY: - **PURPOSE:** Anaplastic lymphoma kinase (ALK) gene rearrangements define a distinct molecular subset of non-small cell lung cancer (NSCLC). Recently, several case reports and small series have reported that ALK rearrangements can overlap with other oncogenic drivers in NSCLC in crizotinib-naïve and crizotinib-resistant cancers. **EXPERIMENTAL DESIGN:** We reviewed clinical genotyping data from 1,683 patients with NSCLC and investigated the prevalence of concomitant EGFR or KRAS mutations among patients with ALK-positive NSCLC. We also examined biopsy specimens from 34 patients with ALK-positive NSCLC after the development of resistance to crizotinib. **RESULTS:** Screening identified 301 (17.8%) EGFR mutations, 465 (27.6%) KRAS mutations, and 75 (4.4%) ALK rearrangements. EGFR mutations and ALK rearrangements were mutually exclusive. Four patients with KRAS mutations were found to have abnormal ALK FISH patterns, most commonly involving isolated 5' green probes. Sufficient tissue was available for confirmatory ALK immunohistochemistry in 3 cases, all of which were negative for ALK expression. Among patients with ALK-positive NSCLC who acquired resistance to crizotinib, repeat biopsy specimens were ALK FISH positive in 29 of 29 (100%) cases. Secondary mutations in the ALK kinase domain and ALK gene amplification were observed in 7 of 34 (20.6%) and 3 of 29 (10.3%) cases, respectively. No EGFR or KRAS mutations were identified among any of the 25 crizotinib-resistant, ALK-positive patients with sufficient tissue for testing. **CONCLUSIONS:** Functional ALK rearrangements were mutually exclusive with EGFR and KRAS mutations in a large Western patient population. This lack of overlap was also observed in ALK-positive cancers with acquired resistance to crizotinib. Clin Cancer Res; 19(15); 4273-81. ©2013 AACR.

[75]

TÍTULO / TITLE: - Novel small molecule inhibitors of Bcl-XL to treat lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Res. 2013 Jul 3.

●● Enlace al texto completo (gratis o de pago) [1158/0008-5472.CAN-12-2272](#)

AUTORES / AUTHORS: - Park D; Magis AT; Li R; Owonikoko TK; Sica GL; Sun SY; Ramalingam SS; Khuri FR; Curran WJ; Deng X

INSTITUCIÓN / INSTITUTION: - Radiation Oncology, Emory University School of Medicine.

RESUMEN / SUMMARY: - Bcl-XL is a major anti-apoptotic protein in the Bcl-2 family whose overexpression is more widely observed in human lung cancer cells than that of Bcl-2, suggesting that Bcl-XL is more biologically relevant and therefore a better therapeutic target for lung cancer. Here, we screened small molecules that selectively target the BH3 domain (aa 90-98) binding pocket of Bcl-XL using the UCSF DOCK 6.1 program suite and the NCI chemical library database. We identified two new Bcl-XL inhibitors (BXI-61 and BXI-72) that exhibit selective toxicity against lung cancer cells compared with normal human bronchial epithelial cells. Fluorescence polarization assay reveals that BXI-61 and BXI-72 preferentially bind to Bcl-XL protein but not Bcl2, Bcl-w, Bfl-1/A1 or Mcl-1 in vitro with high binding affinities. Treatment of cells with BXI-72 results in disruption of Bcl-XL/Bak or Bcl-XL/Bax interaction, oligomerization of Bak and cytochrome c release from mitochondria. Importantly, BXI-61 and BXI-72 exhibit more potent efficacy against human lung cancer than ABT-737 but less degree in platelet reduction in vivo. BXI-72 overcomes acquired radioresistance of lung cancer. Based on our findings, the development of BXI(s) as a new class of anticancer agents is warranted and represents a novel strategy for improving lung cancer outcome.

[76]

TÍTULO / TITLE: - Volumetric computer tomography screening for lung cancer: three rounds of the NELSON trial.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur Respir J. 2013 Jul 11.

●● Enlace al texto completo (gratis o de pago) [1183/09031936.00197712](#)

AUTORES / AUTHORS: - Horeweg N; van der Aalst CM; Vliegenthart R; Zhao Y; Xie X; Th Scholten E; Mali W; Thunnissen E; Weenink C; Groen HJ; Lammers JW; Nackaerts K; van Rosmalen J; Oudkerk M; de Koning HJ

INSTITUCIÓN / INSTITUTION: - Erasmus MC, Rotterdam, The Netherlands.

RESUMEN / SUMMARY: - Several medical associations recommended lung cancer screening by low-dose computer tomography (LDCT) scanning for high-

risk groups. Counselling of the candidates on the potential harms and benefits and their lung cancer risk is a prerequisite for screening. In the NELSON trial, screenings are considered positive for (part) solid lung nodules with a volume >500 mm³ and for (part) solid or non-solid nodules with a volume-doubling time <400 days. For this study, the performance of the NELSON strategy in three screening rounds was evaluated and risk calculations were made for a follow-up period of 5.5 years. 458 (6%) of the 7,582 screened participants had a positive screen result and 200 (2.6%) were diagnosed with lung cancer. The positive screenings had a predictive value of 40.6% and only 1.2% of all scan results were false-positive. In a period of 5.5 years, the risk of screen-detected lung cancer strongly depends on the result of the first scan: 1.0% after a negative baseline result, 5.7% after an indeterminate baseline and 48.3% after a positive baseline. The screening strategy yielded few positive and false-positive scans with a reasonable positive predictive value. The 5.5-year lung cancer risk calculations aid clinicians in counselling candidates for lung cancer screening with LDCT.

[77]

TÍTULO / TITLE: - Video-assisted mediastinoscopic lymphadenectomy is associated with better survival than mediastinoscopy in patients with resected non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Cardiovasc Surg. 2013 Jun 15. pii: S0022-5223(13)00542-4. doi: 10.1016/j.jtcvs.2013.04.036.

●● Enlace al texto completo (gratis o de pago)

[1016/j.jtcvs.2013.04.036](#)

AUTORES / AUTHORS: - Turna A; Demirkaya A; Ozkul S; Oz B; Gurses A; Kaynak K

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Istanbul University, Cerrahpasa Medical School, Istanbul, Turkey. Electronic address: akif.turna@gmail.com.

RESUMEN / SUMMARY: - **OBJECTIVES:** We aimed to analyze the accuracy of video-assisted mediastinoscopic lymphadenectomy (VAMLA) as a tool for preoperative staging and the impact of the technique on survival in patients with non-small cell lung cancer (NSCLC) undergoing pulmonary resection. **METHODS:** Between May 2006 and December 2010, 433 patients underwent pulmonary resection for NSCLC, 89 (21%) had VAMLA before resection and 344 (79%) had standard mediastinoscopy. The patients who had negative VAMLA/mediastinoscopy results underwent anatomic pulmonary resection and systematic lymph node dissection. **RESULTS:** The median and mean numbers of resected lymph node stations were 5 and 4.9 in the VAMLA group and 4 and 4.2 in the mediastinoscopy group (P = .9). The mean number of lymph nodes per biopsy specimen using standard mediastinoscopy was 10.1, whereas it was

30.4 using VAMLA ($P < .001$). VAMLA unveiled N2 or N3 disease in 30 (33.7%) and in 6 (6.7%) of patients, respectively. The negative predictive value, sensitivity, false-negative value, and accuracy of VAMLA were statistically higher in the VAMLA groups compared with those of standard mediastinoscopy. The 5-year survival was 90% for VAMLA patients and 66% for mediastinoscopy patients ($P = .01$). By multivariable analysis, VAMLA was associated with better survival (odds ratio, 1.34; 95% confidence interval, 1.1-3.2; $P = .02$).
CONCLUSIONS: VAMLA was associated with improved survival in NSCLC patients who had resectional surgery.

[78]

TÍTULO / TITLE: - Application of PCR methods to evaluate EGFR, KRAS and BRAF mutations in a small number of tumor cells in cytological material from lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Rep. 2013 Jul 1. doi: 10.3892/or.2013.2579.

●● Enlace al texto completo (gratis o de pago) [3892/or.2013.2579](#)

AUTORES / AUTHORS: - Lewandowska MA; Jozwicki W; Jochymski C; Kowalewski J

INSTITUCIÓN / INSTITUTION: - Molecular Oncology and Genetics Unit, Department of Tumor Pathology and Pathomorphology, Franciszek Lukaszczyk Oncology Center, Bydgoszcz, Poland.

RESUMEN / SUMMARY: - The epidermal growth factor receptor (EGFR) mutation status in the tyrosine kinase domain is known to be a predictor of the response to gefitinib or erlotinib in lung cancer; thus, a non-surgical procedure of tumor specimen collection is critical for mutation analysis. The aim of the present study was to analyze the EGFR, KRAS and BRAF status in limited cytological material. To the best of our knowledge, this is the first time that the quantitative scale of tumor cells and the percentage of tumor cells in cytological material were evaluated at the early stages of pathomorphological material qualification for EGFR, KRAS and BRAF mutation analysis. Our results revealed that even 100-1,000 tumor cells from fine needle aspiration (FNA) samples provided reliable results of mutation analysis when sensitive real-time polymerase chain reaction (PCR) methods were used. EGFR mutations were detected in 10% (7/71) and KRAS mutations were detected in 35% (19/54) of the lung adenocarcinoma cases. In addition, we reported the most common inhibiting mutation (p.T790M) found in coexistence with p.L858R in an FNA sample from a patient, for whom short-term improvement after erlotinib treatment was observed before further progression of the disease. Subsequently, mutual exclusion of EGFR and KRAS mutations was observed. Cytological samples with a small number of tumor cells obtained via FNA, endobronchial ultrasound (EBUS)-transbronchial needle aspiration (TBNA) or brushing are suggested to

be used for diagnostic purposes after careful selection by cytopathologists and analysis using a validated, sensitive real-time PCR method.

[79]

TÍTULO / TITLE: - Sensitivity to epidermal growth factor receptor tyrosine kinase inhibitors in males, smokers, and non-adenocarcinoma lung cancer in patients with EGFR mutations.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Biol Markers. 2013 Jul 18:0. doi: 10.5301/jbm.5000039.

●● Enlace al texto completo (gratis o de pago) [5301/jbm.5000039](#)

AUTORES / AUTHORS: - Zeng Z; Chen HJ; Yan HH; Yang JJ; Zhang XC; Wu YL

INSTITUCIÓN / INSTITUTION: - Guangdong Lung Cancer Institute, Guangdong General Hospital & Guangdong Academy of Medical Sciences, Guangzhou - China.

RESUMEN / SUMMARY: - **Introduction:** The demographical/clinical characteristics of being Asian, having an adenocarcinoma, being female, and being a “never-smoker” are regarded as favorable predictors for epidermal growth factor receptor (EGFR) tyrosine kinase inhibitor (TKI) efficacy in non-small cell lung cancer (NSCLC) with unknown EGFR gene status. In this study, we examined the effects of the supposedly unfavorable clinical variables in EGFR-mutant patients.

Method: In total, 159 EGFR-mutant NSCLC patients’ clinical features were correlated with progression-free survival (PFS), response rate (RR), and overall survival (OS). Multivariate analysis of clinical characteristics was performed using the Cox and logistic regression methods.

Result: There were 90 females (56.6%), 112 never-smokers (70.4%), and 153 patients with adenocarcinomas (96.2%). All patients were treated with EGFR-TKI, and 52.8% received TKI in a first-line setting. The median PFS of patients receiving first-line TKI was similar, regardless of gender (males vs females: 9.1 vs 9.7 months, $p=0.793$), smoking status (never-smokers vs smokers: 9.9 vs 9.1 months, $p=0.570$), or histology (adenocarcinoma vs non-adenocarcinoma: 9.7 vs 9.2 months, $p=0.644$). OS curves of first-line TKI-treated patients were also not associated with gender ($p=0.722$), smoking status ($p=0.579$), or histology ($p=0.480$). Similar results of PFS and OS were obtained for patients who received TKI beyond first-line. Multivariate analysis indicated that none of these clinical factors was an independent predictor of survival.

Conclusions: The supposedly ‘favorable’ clinical factors of female gender, non-smoking status, and adenocarcinoma were not independent predictive factors for PFS or OS in this population of EGFR-mutant NSCLC patients.

[80]

TÍTULO / TITLE: - Lymphatic invasion predicts survival in patients with early node-negative non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Cardiovasc Surg. 2013 Jun 15. pii: S0022-5223(13)00543-6. doi: 10.1016/j.jtcvs.2013.04.037.

- Enlace al texto completo (gratis o de pago)

[1016/j.jtcvs.2013.04.037](#)

AUTORES / AUTHORS: - Nentwich MF; Bohn BA; Uzunoglu FG; Reeh M; Quaas A; Grob TJ; Perez D; Kutup A; Bockhorn M; Izbicki JR; Vashist YK

INSTITUCIÓN / INSTITUTION: - Department of General, Visceral and Thoracic Surgery, University Medical Center Hamburg-Eppendorf, Hamburg, Germany.

RESUMEN / SUMMARY: - **OBJECTIVE:** The aim of this study was to assess the influence of lymphatic and vascular invasion on overall survival in patients with surgically resected non-small cell lung cancer (NSCLC) without lymph node and distant metastases. **METHODS:** From January 1999 to December 2009, a total of 190 NSCLC patients with node-negative pT1-pT4 disease underwent radical resection with lymphadenectomy. Pathologic reports were reclassified to the TNM-7 version, and the influence of lymphatic and vascular invasion on overall survival was examined using Kaplan-Meier and adjusted Cox proportional hazards analyses. **RESULTS:** Lymphatic invasion was present in 34 (17.9%) and vascular invasion in 28 (14.7%) of 190 cases. Lymphatic and vascular invasions were correlated with higher Union for International Cancer Control stages ($P = .056$ and $P = .011$, respectively) and poor differentiated tumors ($P = .051$ and $P = .012$, respectively). There was no difference between pT1a and pT1b tumors in the presence of lymphatic ($P = .912$) or vascular ($P = .134$) invasion. Survival analyses revealed lymphatic ($P < .001$) and vascular ($P = .008$) invasion as statistically significant for the entire study population. Multivariable Cox analysis adjusted for age, Union for International Cancer Control stage, and lymphatic and vascular invasion confirmed lymphatic, but not vascular, invasion as an independent prognostic factor ($P < .001$; hazard ratio, 3.002; 95% confidence interval, 1.780-5.061). Especially in early stages, lymphatic invasion was associated with poorer overall survival in pT1a ($P < .001$), pT1b ($P = .019$), and pT2a ($P = .028$) tumors. **CONCLUSIONS:** Lymphatic invasion represents an independent risk factor for node-negative NSCLC. Its implications on therapy decision making should be further evaluated, especially in early stages.

[81]

TÍTULO / TITLE: - Functional expression of the multimodal extracellular calcium-sensing receptor in pulmonary neuroendocrine cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cell Sci. 2013 Jul 25.

- Enlace al texto completo (gratis o de pago) [1242/jcs.131656](https://doi.org/10.1186/1242/jcs.131656)

AUTORES / AUTHORS: - Lembrechts R; Brouns I; Schnorbusch K; Pintelon I; Kemp PJ; Timmermans JP; Riccardi D; Adriaensen D

RESUMEN / SUMMARY: - The Ca²⁺-sensing receptor (CaSR) is the master regulator of whole body, extracellular free ionized [Ca²⁺]_o. In addition to sensing [Ca²⁺]_o, CaSR integrates inputs from a variety of different physiological stimuli. The CaSR is also expressed in many regions outside of the [Ca²⁺]_o homeostatic system, including the fetal lung where it plays a crucial role in lung development. Here we show that neuroepithelial bodies (NEBs) of the postnatal mouse lung express a functional CaSR. NEBs are densely innervated groups of neuroendocrine epithelial cells in the lung representing complex sensory receptors in the airways and exhibiting stem cell characteristics. qRT-PCR performed on laser microdissected samples from GAD67-GFP mouse lung cryosections revealed exclusive expression of the CaSR in the NEB microenvironment. CaSR immunoreactivity was present at NEB cells from postnatal day 14 onwards. Confocal imaging of lung slices revealed that NEB cells responded to an increase of [Ca²⁺]_o with a rise in intracellular Ca²⁺ ([Ca²⁺]_i); an effect mimicked by several membrane-impermeant CaSR agonists (e.g. the calcimimetic R-568) and that was blocked by the calcilytic, Calhex-231. Blocking TRPC channels attenuated the CaSR-dependent increases in [Ca²⁺]_i, suggesting that Ca²⁺ influx through TRPC channels contributes to the total [Ca²⁺]_i signal evoked by the CaSR in NEBs. CaSR also regulated baseline [Ca²⁺]_i in NEBs and, via paracrine signaling from Clara-like cells, co-ordinated intercellular communication in the NEB microenvironment. These data suggest that the NEB CaSR integrates multiple signals converging on this complex chemosensory unit, and is a key regulator of this intrapulmonary airway stem cell niche.

[82]

TÍTULO / TITLE: - High expression of M3 muscarinic acetylcholine receptor is a novel biomarker of poor prognostic in patients with non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumour Biol. 2013 Jul 10.

- Enlace al texto completo (gratis o de pago) [1007/s13277-013-0982-](https://doi.org/10.1186/1007/s13277-013-0982-x)

[X](#)

AUTORES / AUTHORS: - Wu J; Zhou J; Yao L; Lang Y; Liang Y; Chen L; Zhang J; Wang F; Wang Y; Chen H; Ma J

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, the Third Affiliated Hospital, Harbin Medical University, Harbin, 150040, China.

RESUMEN / SUMMARY: - We assessed the expression of M3 receptor in non-small cell lung cancer (NSCLC) and determined its relationship with clinicopathological features and its impact on patient outcome. Specimens from 192 patients with NSCLC were investigated by immunohistochemistry for M3

receptor and Ki67 expression. Correlation between the expression of M3 receptor and Ki67 and various clinicopathological features of NSCLC patients was analyzed. We found that M3 receptor expression was gradually elevated from normal to metaplasia/dysplasia tissues to cancer tissues. Furthermore, there was a similar trend for Ki67 expression. Statistical analysis revealed that M3 receptor expression in tumor cells were correlated significantly with stage ($P < 0.0001$), histology type ($P = 0.0003$), Ki67 expression ($P < 0.0001$), tumor size ($P < 0.0001$), lymph node status ($P < 0.0001$), LVS invasion ($P = 0.0002$), and histology grade ($P < 0.0001$). Patients with M3 receptor high expression showed far lower disease-free survival (DFS) and overall survival (OS) rates than those with M3 receptor low expression. Multivariate Cox regression analysis demonstrated that high M3 receptor expression was an independent prognostic factor for both DFS and OS. High M3 receptor expression correlates with poor survival in NSCLC patients. M3 receptor expression may be related with tumor progression in NSCLC, indicating that M3 receptor may be a novel antineoplastic target in the future.

[83]

TÍTULO / TITLE: - Differential Diagnosis of Reactive Mesothelial Cells and Malignant Mesothelioma Cells Using the Cell Proliferation Markers Minichromosome Maintenance Protein 7, Geminin, Topoisomerase II Alpha and Ki-67.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Acta Cytol. 2013 Jul 12;57(4):384-390.

●● [Enlace al texto completo \(gratis o de pago\) 1159/000350262](#)

AUTORES / AUTHORS: - Kimura F; Okayasu I; Kakinuma H; Satoh Y; Kuwao S; Saegusa M; Watanabe J

INSTITUCIÓN / INSTITUTION: - Department of Pathological Analysis, Division of Medical Life Sciences, Hirosaki University Graduate School of Health Sciences, Hirosaki, Japan.

RESUMEN / SUMMARY: - Objective: The aim of this study was to evaluate whether the immunocytochemical expression of cell proliferation markers, such as minichromosome maintenance protein 7 (MCM 7), geminin, topoisomerase II alpha (topo IIalpha) and Ki-67, which are different types of cell proliferation markers, could be useful for their differential diagnosis in reactive mesothelial cells and malignant mesothelioma cells obtained from body cavity fluids. Study Design: Samples diagnosed and later histologically confirmed as reactive mesothelial cells (39 cases) or malignant mesothelioma (32 cases) in body cavity fluids were examined. Immunocytochemical staining of MCM 7, geminin, topo IIalpha and Ki-67 was performed with the immunoperoxidase polymer method. Results: Labeling indices (LIs) of MCM 7 (cutoff value 20.0%; sensitivity 100%; specificity 100%), geminin (cutoff value 4.5%; sensitivity 88.0%; specificity 70.0%), topo IIalpha (cutoff value 11.0%; sensitivity 88.0%;

specificity 92.0%) and Ki-67 (cutoff value 15.3%; sensitivity 78.0%; specificity 79.0%) of malignant mesothelioma cells were significantly higher than those of reactive mesothelial cells. Conclusion: LIs of MCM 7, geminin and topo IIalpha can be reliable tools for the differential diagnosis of reactive mesothelial cells and malignant mesothelioma cells.

[84]

TÍTULO / TITLE: - High Procedure Volume Is Strongly Associated With Improved Survival After Lung Cancer Surgery.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Jul 29.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1200/JCO.2013.49.0219](#)

AUTORES / AUTHORS: - Luchtenborg M; Riaz SP; Coupland VH; Lim E; Jakobsen E; Krasnik M; Page R; Lind MJ; Peake MD; Moller H

INSTITUCIÓN / INSTITUTION: - Margreet Luchtenborg, Sharma P. Riaz, Victoria H. Coupland, and Henrik Moller, King's College London School of Medicine; Eric Lim, Royal Brompton Hospital, London; Richard Page, Liverpool Heart and Chest Hospital, Liverpool; Michael J. Lind, Queens Centre for Oncology and Haematology, Hull; Michael D. Peake, Glenfield Hospital, Leicester, United Kingdom; Erik Jakobsen, Odense University Hospital, Odense; and Mark Krasnik, Rigshospitalet, Copenhagen, Denmark.

RESUMEN / SUMMARY: - PURPOSE Studies have reported an association between hospital volume and survival for non-small-cell lung cancer (NSCLC). We explored this association in England, accounting for case mix and propensity to resect. METHODS We analyzed data on 134,293 patients with NSCLC diagnosed in England between 2004 and 2008, of whom 12,862 (9.6%) underwent surgical resection. Hospital volume was defined according to number of patients with resected lung cancer in each hospital in each year of diagnosis. We calculated hazard ratios (HRs) for death in three predefined periods according to hospital volume, sex, age, socioeconomic deprivation, comorbidity, and propensity to resect. RESULTS There was increased survival in hospitals performing > 150 surgical resections compared with those carrying out < 70 (HR, 0.78; 95% CI, 0.67 to 0.90; P trend < .01). The association between hospital volume and survival was present in all three periods of follow-up, but the magnitude of association was greatest in the early postoperative period. CONCLUSION High-volume hospitals have higher resection rates and perform surgery among patients who are older, have lower socioeconomic status, and have more comorbidities; despite this, they achieve better survival, most notably in the early postoperative period.

[85]

TÍTULO / TITLE: - Clinical characteristics and outcomes of patients with small cell lung cancer detected by CT screening.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Med Oncol. 2013 Sep;30(3):623. doi: 10.1007/s12032-013-0623-7. Epub 2013 Jun 6.

●● Enlace al texto completo (gratis o de pago) [1007/s12032-013-0623-](#)

[7](#)

AUTORES / AUTHORS: - Fukushima T; Tateishi K; Yamamoto H; Hanaoka M; Kubo K; Koizumi T

INSTITUCIÓN / INSTITUTION: - First Department of Internal Medicine, Shinshu University School of Medicine, Nagano, Japan.

RESUMEN / SUMMARY: - The present study was performed to evaluate the clinical characteristics and survival outcomes in patients with small cell lung cancer (SCLC) detected by low-dose computed tomography (CT). We retrospectively reviewed clinical records of patients with SCLC treated at our hospital between 1997 and 2011 and selected patients with SCLC detected by CT screening. We identified 12 patients (male/female 11/1; mean age 67.8 years old). Nine patients had limited disease (LD), and 3 had extensive disease (ED). Five LD patients underwent thoracic surgery, and the pathological staging information included stage IA (n = 1), IB (n = 1), IIA (n = 1), and IIIB (n = 2). Although 2 patients with pathological stages IA and IB had >10-year survival, the median survival times (MST) in LD and ED were 25 months (95 % CI 17.0-32.9) and 16 months (95 % CI; not evaluated), respectively. In addition, MST in 12 patients was not significantly different from that in SCLC patients in general care in our hospital. This analysis suggested that CT screening contributes to the detection of early-stage SCLC in patients that are potentially suitable for surgery, but it remains unclear how to improve clinical outcome in patients with SCLC.

[86]

TÍTULO / TITLE: - Tumor Volume Decrease at 8 Weeks Is Associated with Longer Survival in EGFR-Mutant Advanced Non-Small-Cell Lung Cancer Patients Treated with EGFR TKI.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):1059-68. doi: 10.1097/JTO.0b013e318294c909.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e318294c909](#)

AUTORES / AUTHORS: - Nishino M; Dahlberg SE; Cardarella S; Jackman DM; Rabin MS; Hatabu H; Janne PA; Johnson BE

INSTITUCIÓN / INSTITUTION: - Departments of *Imaging, daggerBiostatistics and Computational Biology, Dana-Farber Cancer Institute, Boston, Massachusetts; double daggerDepartment of Medical Oncology and Medicine, Dana-Farber

Cancer Institute and Brigham and Women's Hospital, Boston Massachusetts; and section signDepartment of Radiology, Brigham and Women's Hospital, Boston Massachusetts.

RESUMEN / SUMMARY: - BACKGROUND: The study investigated whether tumor volume changes at 8 weeks of therapy is associated with outcomes in advanced non-small-cell lung cancer (NSCLC) patients harboring sensitizing epidermal growth factor receptor (EGFR) mutations treated with EGFR tyrosine kinase inhibitors (TKIs). METHODS: In 56 advanced NSCLC patients with sensitizing EGFR mutations treated with first-line erlotinib or gefitinib, tumor volumes of dominant lung lesions were measured on baseline and follow-up computed tomography, and were analyzed for association with survival. RESULTS: Among 56 eligible patients, the median tumor volume was 17.8 cm (range, 1.3-172.7 cm) on the baseline scans. Forty-nine patients had follow-up computed tomography at approximately 8 weeks; the median tumor volume at 8 weeks was 7.1 cm (range, 0.4-62.3 cm), with the median proportional volume change of -59% (range, -90% to +91%) from baseline. The proportional volume change at 8 weeks was associated with survival ($p = 0.02$). Using the cutoff value of 38% volume decrease (75th percentile) at 8 weeks, patients with volume decrease more than 38% ($n = 37$) had a median overall survival of 43.5 months compared with 16.3 months among those with volume decrease of 38% or less ($n = 12$; $p = 0.01$). The median progression-free survival for patients with more than 38% volume decrease was 12.6 months, compared with 5.5 months for those with 38% or lesser volume decrease ($p = 0.2$). CONCLUSION: The proportional volume change at 8 weeks is associated with overall survival in EGFR-mutant advanced NSCLC patients treated with first-line EGFR-TKIs. The observation of the study, if confirmed in larger study cohorts, indicates that tumor volume analysis at 8 weeks may provide an early marker for survival, and contribute to therapeutic decision making by identifying patients who may benefit from additional anticancer therapy after 8 weeks of EGFR-TKI therapy.

[87]

TÍTULO / TITLE: - History of lung disease and risk of lung cancer in a population with high household fuel combustion exposures in rural China.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 25. pii: S0169-5002(13)00302-4. doi: 10.1016/j.lungcan.2013.06.019.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.06.019](#)

AUTORES / AUTHORS: - Hosgoodiii HD; Chapman RS; He X; Hu W; Tian L; Liu LZ; Lai H; Chen W; Rothman N; Lan Q

INSTITUCIÓN / INSTITUTION: - Division of Cancer Epidemiology and Genetics, NCI, NIH, DHHS, Bethesda, MD, USA; Division of Epidemiology, Albert

Einstein College of Medicine, Bronx, NY, USA. Electronic address:
dean.hosgood@einstein.yu.edu.

RESUMEN / SUMMARY: - History of chronic lung diseases and household coal use for heating and cooking are established risk factors of lung cancer; however, few studies have been able to explore these risk factors simultaneously. Xuanwei, China, has some of the highest rates of lung cancer in China and most residents experience substantial in-home coal smoke exposures. Using a population-based case-control study of 498 lung cancer cases and 498 age-matched controls, we evaluated the risk of lung cancer in relation to coal smoke exposure and history of chronic lung diseases, including chronic obstructive pulmonary disease (COPD), asthma, tuberculosis (TB), chronic bronchitis, and emphysema. Odds ratios (ORs) and 95% confidence intervals (CIs) were calculated by conditional logistic regression adjusting for potential confounders. We observed an increased risk of lung cancer with history of any chronic lung disease among males (OR=14.2; 95%CI=4.3-46.9), females (OR=2.6; 95%CI=1.1-6.3), smokers (OR=12.7; 95%CI=3.5-45.8), and nonsmokers (OR=2.6; 95%CI=1.1-6.4). Specifically, TB (OR=83.7; 95%CI=11.0-634.7), COPD (OR=3.2; 95%CI=1.7-6.0), and emphysema and chronic bronchitis (OR=3.3; 95%CI=1.7-6.4) were associated with increased risks. These findings suggest that history of chronic lung diseases may also increase risk of lung cancer in populations with indoor coal smoke exposures.

[88]

TÍTULO / TITLE: - Prognostic factors for post-recurrence survival in patients with completely resected Stage I non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cardiothorac Surg. 2013 Jun 27.

●● Enlace al texto completo (gratis o de pago) 1093/ejcts/ezt333

AUTORES / AUTHORS: - Song IH; Yeom SW; Heo S; Choi WS; Yang HC; Jheon S; Kim K; Cho S

INSTITUCIÓN / INSTITUTION: - Department of Thoracic and Cardiovascular Surgery, Seoul National University Bundang Hospital, Seongnam, Republic of Korea.

RESUMEN / SUMMARY: - **OBJECTIVES:** The clinical course from recurrence to cancer-related death after curative resection has not been clearly elucidated in non-small-cell lung cancer (NSCLC). This study examined the clinical outcomes after postoperative recurrence in patients with completely resected Stage I NSCLC. **METHODS:** This study included patients who had recurrence after complete resection for pathological Stage I NSCLC between 2003 and 2009. Clinical data evaluated in this study included the diagnostic process of recurrence, recurrence pattern, treatment process and prognosis. A number of clinicopathological factors were analysed for post-recurrence survival by univariate and multivariate analyses. **RESULTS:** Seventy-two patients

experienced recurrence during a median follow-up period of 37.5 months. Thirteen patients (18%) presented symptoms at the initial recurrence. Tumour markers, computed tomography (CT) and positron emission tomography/CT were chosen as the initial diagnostic tools and detected recurrences in 1 (1%), 51 (71%) and 7 (10%) patients, respectively. The mean recurrence-free interval (RFI) was 15.4 months (≤ 12 months in 34, > 12 months in 38 patients). The patterns of recurrence were presented as loco-regional recurrence in 36 (50%) and distant metastasis in 36 patients (50%). Types of the initial treatment included operations in 28 (39%), chemotherapy and/or radiotherapy in 38 (53%) and radiofrequency ablation in 2 patients (3%). Four patients (6%) rejected treatment. Forty-three patients (62%) presented a good response to the initial treatment. Thirty-seven patients (51%) died, and the cause of death in all of these patients was cancer-related. The median survival duration after recurrence was 43.6 (1-136) months. Univariate analysis identified no recurrence of symptoms, a good response to treatment and a longer RFI as good prognostic factors, while a good response to treatment and a longer RFI were independent prognostic factors in multivariate analysis. CONCLUSIONS: Most postoperative recurrences were detected in an asymptomatic condition during the routine follow-up period, and a good response to initial treatment and a longer RFI were significant predictors of better post-recurrence survival in patients with completely resected Stage I NSCLC.

[89]

TÍTULO / TITLE: - Large noncoding RNA HOTAIR enhances aggressive biological behavior and is associated with short disease-free survival in human non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biochem Biophys Res Commun. 2013 Jun 28;436(2):319-24. doi: 10.1016/j.bbrc.2013.05.101. Epub 2013 Jun 4.

●● [Enlace al texto completo \(gratis o de pago\) 1016/j.bbrc.2013.05.101](#)

AUTORES / AUTHORS: - Nakagawa T; Endo H; Yokoyama M; Abe J; Tamai K; Tanaka N; Sato I; Takahashi S; Kondo T; Satoh K

INSTITUCIÓN / INSTITUTION: - Division of Cancer Stem Cell, Miyagi Cancer Center Research Institute, 47-1 Nodayama, Medeshima-Shiode, Natori, Miyagi 981-1293, Japan; Department of Thoracic Surgery, Miyagi Cancer Center, 47-1 Nodayama, Medeshima-Shiode, Natori, Miyagi 981-1293, Japan.

RESUMEN / SUMMARY: - HOTAIR is one of long non-coding RNAs and its expression correlates with the prognosis and metastasis in various cancers. We showed that HOTAIR expression has an important role in the development of non-small cell lung cancer (NSCLC). In this study, we examined the expression of HOTAIR in 77 NSCLCs, their corresponding normal lung tissues and 6 brain metastases by quantitative real-time RT-PCR. High expression of HOTAIR (tumor/normal ratio ≥ 2) was detected in 17 patients (22.1%) and was frequently

found in patients with advanced stage, lymph node metastasis or lymph-vascular invasion and short disease free interval. Furthermore, brain metastases show significantly higher HOTAIR expression compared to primary cancer tissues. HOTAIR-expressing A549 cells showed induced cell migration and anchorage-independent cell growth in vitro. These results indicate the expression of HOTAIR enhanced the aggressive behavior of NSCLC cells.

[90]

TÍTULO / TITLE: - KRAS Mutations in Advanced Nonsquamous Non-Small-Cell Lung Cancer Patients Treated with First-Line Platinum-Based Chemotherapy Have No Predictive Value.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Jun 19.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e318298764e](#)

AUTORES / AUTHORS: - Mellema WW; Dingemans AM; Thunnissen E; Snijders PJ; Derks J; Heideman DA; Van Suylen R; Smit EF

INSTITUCIÓN / INSTITUTION: - *Department of Pulmonary Diseases, VU University Medical Center, Amsterdam, The Netherlands; daggerDepartment of Pulmonary Diseases and GROW-School for Oncology and Developmental Biology, Maastricht University Medical Center, Maastricht, The Netherlands; double daggerDepartment of Pathology, VU University Medical Center, Amsterdam, The Netherlands; and section signDepartment of Pathology, Maastricht University Medical Center, Maastricht, The Netherlands.

RESUMEN / SUMMARY: - BACKGROUND:: Kirsten rat sarcoma viral oncogene homolog (KRAS) mutation is thought to be related with dismal outcome for non-small-cell lung cancer (NSCLC) patients. The role of KRAS mutation as a predictor of response to chemotherapy for patients with metastatic NSCLC is poorly understood. METHODS:: From a retrospective database of two university hospitals, all patients with advanced, nonsquamous NSCLC treated with first-line platinum-containing chemotherapy were selected. Mutation analysis for KRAS was performed and the relation with response to chemotherapy was assessed. Secondary endpoints were its relation with response to progression-free survival (PFS) and overall survival (OS). RESULTS:: A total of 161 patients, 94 men and 67 women, were included in this study. Median age was 60 years. The majority of patients (79%) had stage IV disease, of which 60 patients (37%) had a KRAS mutation. Patients with a KRAS mutation had a similar response to treatment as patients with KRAS wild-type (wt) ($p = 0.77$). Median PFS in KRAS-mutated patients was 4.0 months versus 4.5 months in KRAS wt patients (hazard ratio = 1.3; [95% confidence interval, 0.9-1.8]; $p = 0.16$). Median OS in patients with KRAS mutation was 7.0 months versus 9.3 months in patients with KRAS wt (hazard ratio = 1.2; [95% confidence interval, 0.9-1.7]; $p = 0.25$). Type of KRAS mutation had no influence on response or

outcome. CONCLUSION:: On the basis of our multicenter data presented here, we conclude that KRAS mutation is not predictive for worse response to chemotherapy, PFS, and OS in advanced NSCLC patients treated with platinum-based chemotherapy in first-line setting.

[91]

TÍTULO / TITLE: - A phase I/II study of sepantronium bromide (YM155, survivin suppressor) with paclitaxel and carboplatin in patients with advanced non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Oncol. 2013 Jul 14.

●● Enlace al texto completo (gratis o de pago) [1093/annonc/mdt249](#)

AUTORES / AUTHORS: - Kelly RJ; Thomas A; Rajan A; Chun G; Lopez-Chavez A; Szabo E; Spencer S; Carter CA; Guha U; Khozin S; Poondru S; Van Sant C; Keating A; Steinberg SM; Figg W; Giaccone G

INSTITUCIÓN / INSTITUTION: - The Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins, Baltimore.

RESUMEN / SUMMARY: - BACKGROUND: This phase I/II study examined the safety and efficacy of Sepantronium Bromide (S), a small-molecule selective survivin suppressant, administered in combination with carboplatin © and paclitaxel (P). PATIENTS AND METHODS: Forty-one patients were treated on study. Twenty-two patients received escalating doses of S (3.6-12 mg/m²) and 19 with untreated stage IV non-small-cell lung cancer (NSCLC) were treated with the maximum tolerated dose of 10 mg/m² in combination with standard doses of C (AUC6) and P (200 mg/m²) for six cycles. S was administered as a continuous intravenous infusion (CIVI) over 72 h in 21-day treatment cycles. Study end points included safety and toxic effect, response rate, progression-free and overall survival (PFS and OS), as well as exploratory pharmacodynamic correlates. RESULTS: Treatment with S was well tolerated, and toxic effects were mostly hematological in the phase II study. Two (11%) partial responses were observed with a median PFS of 5.7 months and median OS 16.1 months. Pharmacodynamic analysis did not demonstrate an association with response. CONCLUSION: The combination of S (10 mg/m²/day 72-h CIVI) administered with C and P every 3 weeks exhibited a favorable safety profile but failed to demonstrate an improvement in response rate in advanced NSCLC. CLINICAL TRIAL NUMBER: NCT01100931.

[92]

TÍTULO / TITLE: - Serum-soluble receptor-binding cancer antigen expressed on SiSo cells as a clinical marker in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumour Biol. 2013 Jul 24.

●● Enlace al texto completo (gratis o de pago) [1007/s13277-013-1010-](https://doi.org/10.1007/s13277-013-1010-x)

[X](#)

AUTORES / AUTHORS: - Xu CH; Zhan P; Zhang Y; Yu LK

INSTITUCIÓN / INSTITUTION: - First Department of Respiratory Medicine, Nanjing Chest Hospital, 215 Guangzhou Road, Nanjing, 210029, China.

RESUMEN / SUMMARY: - The aim of this study was to explore the diagnostic value of levels of the serum-soluble receptor-binding cancer antigen expressed on SiSo cells (sRCAS1) expressed in lung cancer patients. Enzyme-linked immunosorbent assay was performed to detect serum sRCAS1 levels in 138 patients with lung cancers of various types and in 40 healthy controls. Our results showed that the patients with lung cancer had higher serum sRCAS1 levels than the controls. As disease stages progressed in lung cancer, serum sRCAS1 levels increased; patients with lymph node and distant metastases had higher levels than those without metastases, regardless of histology, age, and gender. At a cutoff value of 19.2 U/ml, sRCAS1 was 91.3 % sensitive and 72.5 % specific for lung cancer. In conclusion, these results suggest that sRCAS1 levels could have a clinical value for the diagnosis and management of lung cancer and could be used as a new tumor marker of lung cancer.

[93]

TÍTULO / TITLE: - Osteopontin genetic variants are associated with overall survival in advanced non-small-cell lung cancer patients and bone metastasis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Exp Clin Cancer Res. 2013 Jul 24;32:45. doi: 10.1186/1756-9966-32-45.

●● Enlace al texto completo (gratis o de pago) [1186/1756-9966-32-45](https://doi.org/10.1186/1756-9966-32-45)

AUTORES / AUTHORS: - Chen Y; Liu H; Wu W; Li Y; Li J

INSTITUCIÓN / INSTITUTION: - Department of Orthopedic, Qilu Hospital of Shandong University, No,107, Wen Hua Xi Road, Jinan 250012, Shandong province, China. yunzhenchen2011@hotmail.com

RESUMEN / SUMMARY: - **PURPOSE:** Osteopontin (OPN) plays important roles in the modulation of apoptosis, angiogenesis, immune response, and tumor invasion. Elevated osteopontin expression has been reported in the lung cancer tissues compared to counterpart normal tissues. This study examined whether genetic variations in the osteopontin gene are associated with survival of lung cancer patients and occurrence rate of bone metastasis. **EXPERIMENTAL DESIGN:** Three hundred and sixty patients with stages I to IV between 2003 and 2007 were recruited in this study and same number of healthy persons were used as control. Three promoter osteopontin polymorphisms, OPN-66 T/G, -156G/GG, and -443C/T variants were genotyped using DNA from blood lymphocytes. Chi-square test and a Fisher's exact test were used to analyze the genotype distribution among TNM stages and incidence of bone metastasis and lymph node metastasis. Kaplan-Meier method and log-rank test were used to

compare survival by different genotypes. RESULTS: For the variant at nt -443 (CC), there was a significant difference between the number of patients with stage IV and those with all other stages of lung cancer ($p < 0.01$). Patients with -443 (CC) variant had significant higher incidence of bone metastasis development compared to other genotypes. For the variant at nt -443 (CT), there was a significant difference between the number of lung cancer patients with stage III + IV and those with stage I + II ($P < 0.01$). The survival rates for patients with the C/C genotype were significantly lower than for patients with the other two genotypes (C/T, T/T). CONCLUSION: OSTEOPONTIN -443C/T polymorphism is a potential predictive marker of survival in lung cancer patients, it is correlated with bone metastasis significantly.

[94]

TÍTULO / TITLE: - Treatment of Medically Inoperable Non-small-cell Lung Cancer with Stereotactic Body Radiation Therapy versus Image-guided Tumor Ablation: Can Interventional Radiology Compete?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Vasc Interv Radiol. 2013 Aug;24(8):1139-45. doi: 10.1016/j.jvir.2013.04.021. Epub 2013 Jun 21.

●● Enlace al texto completo (gratis o de pago) 1016/j.jvir.2013.04.021

AUTORES / AUTHORS: - Dupuy DE

INSTITUCIÓN / INSTITUTION: - Department of Diagnostic Imaging, Warren Alpert Medical School of Brown University, Rhode Island Hospital, 593 Eddy St., Providence, RI 02903. Electronic address: ddupuy@lifespan.org.

RESUMEN / SUMMARY: - Patients with medically inoperable stage IA non-small-cell lung cancer have treatment options that include image-guided tumor ablation or stereotactic body radiation therapy. Literature to date with both techniques suggests similar overall survival; however, local control rates appear to be higher with SBRT. It is important for interventional radiologists to understand the differences and similarities between these two techniques. Future research is important to determine which patients would benefit from these therapies. This review summarizes the two techniques and available clinical literature, provides relevant commentary, and suggests future directions for research in this area.

[95]

TÍTULO / TITLE: - Codelivery of VEGF siRNA and Gemcitabine Monophosphate in a Single Nanoparticle Formulation for Effective Treatment of NSCLC.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Ther. 2013 Aug;21(8):1559-69. doi: 10.1038/mt.2013.120. Epub 2013 Jun 18.

●● Enlace al texto completo (gratis o de pago) 1038/mt.2013.120

AUTORES / AUTHORS: - Zhang Y; Schwerbrock NM; Rogers AB; Kim WY; Huang L

INSTITUCIÓN / INSTITUTION: - Division of Molecular Pharmaceutics and Center for Nanotechnology in Drug Delivery, Eshelman School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA.

RESUMEN / SUMMARY: - There is an urgent need for new therapeutics for the treatment of aggressive and metastatic refractory human non-small-cell lung cancer (NSCLC). Antiangiogenesis therapy and chemotherapy are the two major treatment options. Unfortunately, both types of therapies when used individually have their disadvantages. Integrating antiangiogenesis therapy with chemotherapy is expected to target the tumor's vascular endothelial cells and the tumor cells simultaneously. In this study, we coformulated Vascular endothelial growth factor (VEGF) siRNA targeting VEGFs and gemcitabine monophosphate (GMP) into a single cell-specific, targeted lipid/calcium/phosphate (LCP) nanoparticle formulation. Antitumor effect of the combination therapy using LCP loaded with both VEGF siRNA and GMP was evaluated in both subcutaneous and orthotopic xenograft models of NSCLC with systemic administration. The improved therapeutic response, as compared with either VEGF siRNA or GMP therapy alone, was supported by the observation of 30-40% induction of tumor cell apoptosis, eightfold reduction of tumor cell proliferation and significant decrease of tumor microvessel density (MVD). The combination therapy led to dramatic inhibition of tumor growth, with little in vivo toxicity. In addition, the current studies demonstrated the possibility of incorporating multiple nucleic acid molecules and phosphorylated small-molecule drugs, targeting to different pathways, into a single nanoparticle formulation for profound therapeutic effect.

[96]

TÍTULO / TITLE: - Severity of emphysema predicts location of lung cancer and 5-y survival of patients with stage I non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Surg Res. 2013 Jun 15. pii: S0022-4804(13)00563-5. doi: 10.1016/j.jss.2013.05.081.

●● Enlace al texto completo (gratis o de pago) [1016/j.jss.2013.05.081](#)

AUTORES / AUTHORS: - Bishawi M; Moore W; Bilfinger T

INSTITUCIÓN / INSTITUTION: - Cardiothoracic Surgery, SUNY at Stony Brook, Stony Brook, New York.

RESUMEN / SUMMARY: - BACKGROUND: Non-small cell lung cancer (NSCLC) has a predilection to occur in emphysematous lungs. The relation between the regional severity of emphysema and the location of NSCLC as well as long-term survival has been poorly studied. METHODS: Computed tomography (CT) scans of 153 patients with biopsy-proven stage I NSCLC diagnosed between 2001 and 2006 were assigned an emphysema severity score in four regions of

the lung. The location of the cancer was compared with the severity of emphysema in that region. Survival was also analyzed. RESULTS: Thirty-nine patients had no emphysema documented on CT scan and 114 did. The most common location of cancer was the right upper quadrant with 37% of cancers, followed by the left upper quadrant with 23% of cancers. Twenty-two percent of the cancers occurred in the right lower quadrant, and only 12% were in the left lower quadrant. There is a strong association for cancer being located in the area with the highest degree of emphysema ($P < 0.001$). Emphysema severity score was also associated with long-term survival (log-rank $P = 0.03$). CONCLUSIONS: The regional severity of emphysema assessed via a visual scale using CT appears to be associated with the location of lung cancer and is an independent predictor of long-term survival.

[97]

TÍTULO / TITLE: - Rapid induction of lung adenocarcinoma by fibroblast growth factor 9 signaling through FGF receptor 3.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Res. 2013 Jul 18.

- Enlace al texto completo (gratis o de pago) [1158/0008-5472.CAN-13-0495](#)

AUTORES / AUTHORS: - Yin Y; Betsuyaku T; Garbow JR; Miao J; Govindan R; Ornitz DM

INSTITUCIÓN / INSTITUTION: - Developmental Biology, Washington University.

RESUMEN / SUMMARY: - Fibroblast Growth Factors (FGFs) are expressed in many non-small cell lung cancer (NSCLC) primary tumors and derived cell lines, and mutations in FGF receptor 3 (FGFR3) have been identified in human lung adenocarcinoma. FGF9 has been implicated in the pathogenesis of NSCLC by synergizing with EGFR pathways or by providing an escape pathway mediating resistance to EGFR inhibition. To model pathogenic mechanisms mediated by FGF signals, we have established a mouse model in which FGF9 expression can be induced in adult lung epithelium. Here, we show that induced expression of FGF9 in adult lung leads to the rapid proliferation of distal airway epithelial cells that express the stem cell marker, Sca-1, and the proximal and distal epithelial markers, Sftpc and CC10, the rapid formation of Sftpc positive adenocarcinomas, and eventual metastasis in some mice. Furthermore, we have identified FGF receptor 3 (FGFR3) as the obligate receptor mediating the FGF9 oncogenic signal. These results identify an FGF9-FGFR3 signal as a primary oncogenic pathway for lung adenocarcinoma and suggest that this pathway could be exploited for customized therapeutic applications for both primary tumors and those that have acquired resistance to inhibition of other signaling pathways.

[98]

TÍTULO / TITLE: - Early-onset neutropenia during perioperative chemotherapy is predictive of increased survival in patients with completely resected non-small cell lung cancer: a retrospective analysis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Jun;33(6):2755-61.

AUTORES / AUTHORS: - Lee CY; Park SY; Shin TR; Park YB; Kim CH; Jang SH; Lee JW

INSTITUCIÓN / INSTITUTION: - Division of Pulmonary, Allergy and Critical Care Medicine, Hallym University, Anyang, Gyeonggi, Korea.

RESUMEN / SUMMARY: - BACKGROUND: Chemotherapy-induced neutropenia (CIN) has been found to be predictive of better therapeutic outcomes in studies of patients with various tumors. This study investigated whether CIN occurring during perioperative chemotherapy cycles 1 or 2 is a prognostic indicator in patients with completely resected non-small cell lung cancer (NSCLC).

PATIENTS AND METHODS: The records of patients with completely resected NSCLC receiving at least two cycles of perioperative platinum-based doublet chemotherapy were reviewed retrospectively. Early-onset CIN was defined as a neutrophil count $<2.0 \times 10^9/l$ during chemotherapy cycles 1 or 2. Subjects were stratified into two groups: presence or absence of early-onset CIN.

RESULTS: A total of 93 patients were included in this analysis. Early-onset CIN developed in 54.8% (51/93) cases. The median overall survival (OS) of patients developing early-onset CIN was significantly longer than the survival of patients without early-onset CIN (92.4 vs. 35.8 months, $p=0.022$), and the median disease-free survival (DFS) of patients with early-onset CIN was also longer, although the difference was not significant (48.3 vs. 18.6 months, $p=0.138$).

Multivariate analysis demonstrated that early-onset CIN was an independent prognostic indicator for OS [hazard ratio (HR) for death=0.422, 95% confidence interval (CI)=0.201-0.884; $p=0.022$] and DFS (HR for recurrence=0.482, 95% CI=0.247-0.943; $p=0.033$). CONCLUSION: Early-onset CIN during perioperative chemotherapy is predictive of better OS and DFS in patients with completely resected NSCLC.

[99]

TÍTULO / TITLE: - Visceral Pleural Invasion Does Not Affect Recurrence or Overall Survival among Patients with Lung Adenocarcinoma ≤ 2 cm: A Proposal to Reclassify T1 Lung Adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chest. 2013 Jun 27. doi: 10.1378/chest.13-0394.

●● [Enlace al texto completo \(gratis o de pago\) 1378/chest.13-0394](#)

AUTORES / AUTHORS: - Nitadori J; Colovos C; Kadota K; Sima CS; Sarkaria I; Rizk N; Rusch VW; Travis WD; Adusumilli PS

RESUMEN / SUMMARY: - ABSTRACT BACKGROUND: T1 (≤ 3 cm) tumors with visceral pleural invasion (VPI) are upstaged to T2a (stage IB) in the TNM classification. We investigated the effect of VPI on the cumulative incidence of recurrence (CIR) and overall survival (OS) of lung ADC ≤ 2 cm (T1a) and 2-3 cm (T1b). METHODS: OS and CIR among patients with or without VPI were examined by tumor size (≤ 2 cm and 2-3 cm) in 777 patients with node-negative lung ADC ≤ 3 cm who underwent resection. RESULTS: Among patients with tumors ≤ 2 cm, VPI was not associated with either increased CIR ($P = .90$) or decreased OS ($P = .11$). Among patients with tumors 2-3 cm, presence of VPI was associated with increased CIR ($P = .015$) and decreased OS ($P < .001$), even when adjusted for histologic subtype. When stage I lung ADC tumors ≤ 3 cm were regrouped as either new stage IA (≤ 2 cm with or without VPI; 2-3 cm without VPI) or new stage IB (2-3 cm with VPI), there was a statistically significant difference in 5-year CIR and OS between new stage IA and new stage IB tumors (CIR, 18% vs. 40% [$P = .004$]; OS, 76% vs. 51% [$P < .001$]). CONCLUSIONS: VPI stratifies prognosis in patients with lung ADC 2-3 cm but not in those with tumors ≤ 2 cm. Our proposed regrouping of a new stage IB better stratifies patients with poor prognosis, similar to published outcomes in stage II patients, who may benefit from adjuvant chemotherapy.

[100]

TÍTULO / TITLE: - Incidence and risk of lung cancer in HIV-infected patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cancer Res Clin Oncol. 2013 Jul 28.

●● Enlace al texto completo (gratis o de pago) [1007/s00432-013-1477-](http://1007/s00432-013-1477-2)

[2](#)

AUTORES / AUTHORS: - Hou W; Fu J; Ge Y; Du J; Hua S

INSTITUCIÓN / INSTITUTION: - Department of Cadre Ward, The First Hospital of Jilin University, Changchun, 130021, China.

RESUMEN / SUMMARY: - PURPOSE: Lung cancer is one of the most common non-AIDS-defining malignancies among HIV-infected patients. The incidence of lung cancer has significantly increased in the HIV-positive population in recent years. The purpose of this study was to summarize the incidence and risk of lung cancer in published population-based studies of people with HIV/AIDS. METHODS: Published literature from PubMed, Embase, the Web of Science, and Google Scholar was retrieved. Sixty-five publications were selected and assessed for the following parameters: research coverage and location; continent; study period; duration of follow-up; lung cancer cases; HIV cases; incidence rate; and overall SIR or adjusted IRR. In addition, the risk of lung cancer was compared based on age, gender, HIV exposure category, CD4 count, and periods with highly active antiretroviral therapy (HAART). RESULTS: Lung cancer risk was greater among HIV-infected individuals compared with the general population. SIRs or adjusted IRRs were 1.5-3.4 in Europe, 0.7-6.9 in

the USA, and 5.0 in Africa. Most, but not all studies did not observe a significant change in the incidence and risk of lung cancer between the pre-HAART and HAART eras. In most studies, the risk of lung cancer was higher among women, younger individuals, and injection drug users (IDUs), but the incidence of lung cancer was higher among men and the elderly. No significant trend in lung cancer risk across CD4 cell count categories was reported among the selected articles. CONCLUSION: Our study suggests an increase in the incidence and risk of lung cancer in HIV/AIDS population is worldwide. The effect of HAART on the incidence and risk of lung cancer is in dispute. The risk of lung cancer based on gender differences, especially among females, as well as IDUs, requires further investigation.

[101]

TÍTULO / TITLE: - Tumor-infiltrating regulatory T cells inhibit endogenous cytotoxic T cell responses to lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Immunol. 2013 Aug 15;191(4):2009-17. doi: 10.4049/jimmunol.1301317. Epub 2013 Jul 12.

●● [Enlace al texto completo \(gratis o de pago\) 4049/jimmunol.1301317](#)

AUTORES / AUTHORS: - Ganesan AP; Johansson M; Ruffell B; Beltran A; Lau J; Jablons DM; Coussens LM

INSTITUCIÓN / INSTITUTION: - Department of Pathology, University of California, San Francisco, San Francisco, CA 94143;

RESUMEN / SUMMARY: - Immune cells comprise a substantial proportion of the tumor mass in human nonsmall cell lung cancers (NSCLC), but the precise composition and significance of this infiltration are unclear. In this study, we examined immune complexity of human NSCLC as well as NSCLC developing in CC10-TAg transgenic mice, and revealed that CD4(+) T lymphocytes represent the dominant population of CD45(+) immune cells, and, relative to normal lung tissue, CD4(+)Foxp3(+) regulatory T cells (Tregs) were significantly increased as a proportion of total CD4(+) cells. To assess the functional significance of increased Tregs, we evaluated CD8(+) T cell-deficient/CC10-TAg mice and revealed that CD8(+) T cells significantly controlled tumor growth with antitumor activity that was partially repressed by Tregs. However, whereas treatment with anti-CD25-depleting mAb as monotherapy preferentially depleted Tregs and improved CD8(+) T cell-mediated control of tumor progression during early tumor development, similar monotherapy was ineffective at later stages. Because mice bearing early NSCLC treated with anti-CD25 mAb exhibited increased tumor cell death associated with infiltration by CD8(+) T cells expressing elevated levels of granzyme A, granzyme B, perforin, and IFN-gamma, we therefore evaluated carboplatin combination therapy resulting in a significantly extended survival beyond that observed with chemotherapy alone,

indicating that Treg depletion in combination with cytotoxic therapy may be beneficial as a treatment strategy for advanced NSCLC.

[102]

TÍTULO / TITLE: - Diffuse Intrapulmonary Malignant Mesothelioma Masquerading as Interstitial Lung Disease: A Distinctive Variant of Mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Surg Pathol. 2013 Jun 20.

●● Enlace al texto completo (gratis o de pago)

[1097/PAS.0b013e3182910c82](#)

AUTORES / AUTHORS: - Larsen BT; Klein JR; Hornychova H; Nuti R; Thirumala S; Leslie KO; Colby TV; Tazelaar HD

INSTITUCIÓN / INSTITUTION: - *Division of Anatomic Pathology, Mayo Clinic, Rochester, MN paragraph signDivision of Anatomic Pathology, Mayo Clinic, Scottsdale, AZ daggerDepartment of Pathology, University of Manitoba, Winnipeg, MB, Canada double daggerDepartment of Pathology, Faculty of Medicine and University Hospital, Charles University in Prague, Hradec Kralove, Czech Republic section signSchool of Medicine, Texas Tech University Health Science Center parallelAmeriPath, Lubbock, TX.

RESUMEN / SUMMARY: - Malignant mesothelioma typically encases lungs as a thick rind, while relatively sparing lung parenchyma. We describe an unusual presentation of mesothelioma characterized by diffuse intrapulmonary growth, with absent or inconspicuous pleural involvement, clinically simulating interstitial lung disease (ILD). We identified 5 patients (median age 56 y, all men) with diffuse intrapulmonary malignant mesothelioma in our pathology consultation practice from 2009 to 2012. Clinical history, imaging, and pathology materials were reviewed. Symptoms included chronic dyspnea (4 cases), cough (3), and acute dyspnea with bilateral pneumothorax (1). Chest imaging showed irregular opacities (5), reticulation (4), pleural effusions (2), and subpleural nodular densities (1), without radiologic evidence of pleural disease or masses. A clinicoradiologic diagnosis of ILD was made in all cases, and wedge biopsies were performed. Histologic evaluation revealed a neoplastic proliferation of bland epithelioid or spindle cells, showing various growth patterns simulating silicotic nodules, desquamative interstitial pneumonia, organizing pneumonia, and Langerhans cell histiocytosis. Some areas mimicked adenocarcinoma, with lepidic, acinar, micropapillary, and solid patterns. Initial diagnoses by referring pathologists included reactive changes (1), hypersensitivity pneumonitis versus drug reaction (1), desquamative interstitial pneumonia versus neoplasm (1), and mesothelioma (2). Microscopic pleural involvement was identified in 4 cases. Immunohistochemistry confirmed the characteristic immunophenotype of mesothelioma in all cases. Median survival of 3 patients treated with chemotherapy was 28 months. Two patients received no therapy and survived 3 and 4 weeks, respectively. "Diffuse intrapulmonary malignant mesothelioma" is

a rare variant with a distinctive presentation that clinically mimics ILD. Recognition is essential to avoid misdiagnosis.

[103]

TÍTULO / TITLE: - Pemetrexed as the first-line therapy for Chinese patients with advanced non-squamous non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biomed Pharmacother. 2013 May 15. pii: S0753-3322(13)00067-X. doi: 10.1016/j.biopha.2013.04.013.

●● Enlace al texto completo (gratis o de pago)

[1016/j.biopha.2013.04.013](#)

AUTORES / AUTHORS: - Xu B; Liu P; Yin Y; Liu P; Shu Y

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, The First Affiliated Hospital of Nanjing Medical University, Nanjing, PR China.

RESUMEN / SUMMARY: - Non-small cell lung cancer (NSCLC) represents the most common cause of cancer mortality worldwide and counts for the greatest number of deaths from lung cancer in both men and women over age 60. Pemetrexed is a multi-targeted anti-metabolite and has shown comparable activity for Caucasian patients with advanced NSCLC. In this single-center retrospective study, we analyzed the outcome in 75 Chinese non-squamous NSCLC patients treated with pemetrexed as first-line therapy and assessed its efficacy and tolerability. The overall response rate was 9.3% (7/75) with 7 partial responses and no complete response. There were 44 (58.7%) stable diseases and 24 progressive diseases (32.0%). The median progression-free survival (PFS) was 6.79months (95% CI 5.69-7.90months), and the median overall survival (OS) was 11.67months (95% CI 9.98-13.36months). Good performance status and negative smoke history predicted better PFS and OS. Most side effects were generally mild and well tolerated. Taken together, pemetrexed was safe and effective in Chinese patients with non-squamous NSCLC. Pemetrexed alone or in combination with other efficacious drugs may serve as first-line therapy for this disease.

[104]

TÍTULO / TITLE: - Experience in integrating ALK testing and crizotinib into the routine treatment of patients with non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Onkologie. 2013;36(6):342-7. doi: 10.1159/000351163. Epub 2013 Apr 30.

●● Enlace al texto completo (gratis o de pago) [1159/000351163](#)

AUTORES / AUTHORS: - Gautschi O; Schefer H; Riklin C; Strobel K; Diebold J

INSTITUCIÓN / INSTITUTION: - Department of Medicine, Medical Oncology, Cantonal Hospital, Lucerne, Switzerland. oliver.gautschi@luks.ch

RESUMEN / SUMMARY: - BACKGROUND: Crizotinib, an inhibitor of the anaplastic lymphoma kinase (ALK), is approved since 2012 in Switzerland for use in ALK-rearranged advanced pretreated non-small cell lung cancer (NSCLC). PATIENTS AND METHODS: Here we describe our own experience with crizotinib and ALK testing via fluorescence in-situ hybridization (FISH) in the first 10 ALK-positive patients who were treated in central Switzerland in 2011 on a compassionate use basis. RESULTS: We have demonstrated that FISH testing for ALK can be performed simultaneously with other diagnostic procedures, providing oncologists with results in a timely manner to make informed decisions about patient treatment. The majority of our patients treated with crizotinib had a clinical benefit, and the drug was tolerated well. CONCLUSION: The clinical development of crizotinib has been extremely rapid. Nonetheless, by the time crizotinib was approved, many centers including our own had local testing in place and clinical experience with the drug. This emphasizes the importance of broad clinical studies and compassionate use programs in oncology.

[105]

TÍTULO / TITLE: - The utility of the proposed IASLC/ATS/ERS lung adenocarcinoma subtypes for disease prognosis and correlation of driver gene alterations.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 25. pii: S0169-5002(13)00269-9. doi: 10.1016/j.lungcan.2013.06.012.

- Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.06.012](#)

AUTORES / AUTHORS: - Tsuta K; Kawago M; Inoue E; Yoshida A; Takahashi F; Sakurai H; Watanabe SI; Takeuchi M; Furuta K; Asamura H; Tsuda H

INSTITUCIÓN / INSTITUTION: - Division of Pathology and Clinical Laboratory Division, National Cancer Center Hospital, Tokyo, Japan. Electronic address: ktsuta@ncc.go.jp.

RESUMEN / SUMMARY: - BACKGROUND: The present study aimed to determine the ability of the revised International Association for the Study of Lung Cancer (IASLC)/American Thoracic Society (ATS)/European Respiratory Society (ERS) classification of lung adenocarcinoma to predict patient survivals and driver gene alterations. PATIENTS AND METHODS: A reclassification of 904 surgically resected adenocarcinomas was performed. The results were statistically analyzed to examine the correlation between the classification and overall survival (OS) using Cox regression analyses, and integrated discrimination improvement (IDI) analyses. RESULTS: The 5-year OS rates for adenocarcinomas in situ (AIS) or minimally invasive adenocarcinoma (MIA) were 98%. Five-year OS rates of Lepidic-, acinar-, papillary-, micropapillary-, and solid-predominant adenocarcinomas was 93%, 67%, 74%, 62%, and 58%,

respectively. The IDI estimates revealed that classification of ADC into the 7 subgroups had a higher estimated (0.0175) than did the combined histological grouping (AIS+MIA, lepidic+acinar+papillary, micropapillary+solid+others) (0.0111). Epidermal growth factor receptor mutations, KRAS gene mutations, and anaplastic lymphoma kinase gene alterations were statistically prevalent in papillary-predominant (P=0.00001), invasive mucinous (P=0.00001), and micropapillary- and acinar-predominant (P=0.00001) adenocarcinomas, respectively. CONCLUSIONS: The new classification reflects disease prognosis, and was also associated with driver gene alterations.

[106]

TÍTULO / TITLE: - Expression of the antimicrobial peptide cathelicidin in myeloid cells is required for lung tumor growth.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncogene. 2013 Jul 1. doi: 10.1038/onc.2013.248.

●● [Enlace al texto completo \(gratis o de pago\) 1038/onc.2013.248](#)

AUTORES / AUTHORS: - Li D; Beisswenger C; Herr C; Schmid RM; Gallo RL; Han G; Zakharkina T; Bals R

INSTITUCIÓN / INSTITUTION: - Department of Internal Medicine V-Pulmonology, Allergology, Respiratory Intensive Care Medicine, Saarland University Hospital, Homburg, Germany.

RESUMEN / SUMMARY: - Antimicrobial peptides, such as the cathelicidin LL-37/hCAP-18 and its mouse homolog cathelicidin-related antimicrobial peptide (CRAMP), are important effectors of the innate immune system with direct antibacterial activity. Cathelicidin is possibly involved in the regulation of tumor cell growth. The aim of this study was to characterize the role of cathelicidin expressed in non-tumorous cells in a preclinical mouse model of tumor growth. Wild-type and CRAMP-deficient animals were exposed to cigarette smoke (CS) and Lewis lung carcinoma cells were injected to initiate the growth of tumors in the lung. CS exposure significantly increased the proliferation of lung tumors in wild-type mice, but not in CRAMP-deficient mice. CS exposure induced the recruitment of myeloid cell into tumor tissue in a CRAMP-dependent manner. Mice lacking RelA/p65 specifically in myeloid cells showed impaired recruitment of CRAMP-positive cells into the lung. In vitro studies with human cells showed that LL-37/hCAP-18 in macrophages is induced by soluble factors derived from cancer cells. Taken together, these data indicate that cathelicidin expressed from myeloid cells promotes CS-induced lung tumor growth by further recruitment of inflammatory cells. The regulation of cathelicidin expression involves myeloid p65/RelA and soluble factor from tumor cells. Oncogene advance online publication, 1 July 2013; doi:10.1038/onc.2013.248.

[107]

TÍTULO / TITLE: - Hypermethylation reduces expression of tumor-suppressor PLZF and regulates proliferation and apoptosis in non-small-cell lung cancers.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - FASEB J. 2013 Jun 26.

●● Enlace al texto completo (gratis o de pago) [1096/fj.13-229070](#)

AUTORES / AUTHORS: - Wang X; Wang L; Guo S; Bao Y; Ma Y; Yan F; Xu K; Xu Z; Jin L; Lu D; Xu J; Wang JC

INSTITUCIÓN / INSTITUTION: - *State Key Laboratory of Genetic Engineering and Ministry of Education Key Laboratory of Contemporary Anthropology, School of Life Sciences, Fudan University, Shanghai, China;

RESUMEN / SUMMARY: - Dereglulation of promyelocytic leukemia zinc finger protein (PLZF), a tumor suppressor gene, was reported in different types of solid tumors. This study for the first time explored the reduced expression of PLZF and its effects in non-small-cell lung cancer (NSCLC) carcinogenesis. PLZF was found to be down-regulated by 62.8% in 87.1% of 154 paired NSCLC samples by quantitative real-time PCR, and its expression was found to be associated with the sex of the patient (P=0.02). Further analysis showed that down-regulation of PLZF in 35.6% NSCLC samples (31 out of 87) was triggered by hypermethylation in the promoter region. This was validated by demethylation analysis using the A549 cell line. Dual-luciferase reporter assay indicated that CTCF binding to the promoter region could activate PLZF transcription. Overexpression of PLZF in both A549 and LTEP lung cancer cell lines was found to inhibit proliferation and increase apoptosis. Therefore, reduced expression of PLZF was found to be common in NSCLC. PLZF down-regulation was partially correlated with hypermethylation in the promoter region. Decreased levels of PLZF expression may contribute to the pathogenesis of NSCLC by promoting cell survival. Therefore, the restoration of PLZF expression may serve as a new strategy for NSCLC therapy.-Wang, X., Wang, L., Guo, S., Bao, Y., Ma, Y., Yan, F., Xu, K., Xu, Z., Jin, L., Lu, D., Xu, J., Wang, J.-C. Hypermethylation reduces expression of tumor-suppressor PLZF and regulates proliferation and apoptosis in non-small-cell lung cancers.

[108]

TÍTULO / TITLE: - Brief report on the use of radiolabeled somatostatin analogs for the diagnosis and treatment of metastatic small-cell lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):1095-101. doi: 10.1097/JTO.0b013e318293f051.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e318293f051](#)

AUTORES / AUTHORS: - Sollini M; Farioli D; Froio A; Chella A; Asti M; Boni R; Grassi E; Roncali M; Versari A; Erba PA

INSTITUCIÓN / INSTITUTION: - *Department of Oncology and Advanced Technology, Nuclear Medicine Unit, Arcispedale Santa Maria Nuova - IRCCS, Reggio Emilia; daggerCardio-Thoracic-Vascular Department, Pneumology Unit, Azienda Ospedaliero-Universitaria Pisa; double daggerDepartment of Translational Research and Advanced Technology in Medicine, Nuclear Medicine Unit, University of Pisa, Pisa, Italy; and section signDepartment of Oncology and Advanced Technology, Medical Physics Unit, Arcispedale Santa Maria Nuova - IRCCS, Reggio Emilia, Italy.

RESUMEN / SUMMARY: - INTRODUCTION: The demonstration of type 2 somatostatin receptors (SSTRs) in small-cell lung cancer (SCLC) represents the rationale for the use of positron emission tomography/computed tomography (PET/CT) to determine SSTR expression, and select patients suitable for peptide radioreceptor radionuclide therapy (PRRT) in extensive-disease stage (ED) SCLC. METHODS: We evaluated 24 ED-SCLC patients with radiolabeled SST-analog PET/CT. Lesions at PET/CT scan were semiquantitatively scored (from 0 to 3+) and compared with contrast-enhanced CT findings. Patients scored as 3+ were admitted to PRRT after dosimetric evaluation. Average injected activity/cycle was 2.6 GBq (yttrium-PRRT) or 6.0 GBq (lutetium-PRRT). PRRT efficacy was clinically and radiologically assessed. RESULTS: PET/CT was negative in four of 24 patients, whereas in the remaining 20 cases uptake was scored as 1+ in seven of 20, 2+ in one of 20, and 3+ in 12 of 20. Primary tumor lesions showed uptake in 16 of 24 patients. Uptake in metastatic lesions was observed in four of four adrenals, two of five brain, 12 of 16 bone, three of eight liver, and 17 of 20 lymph node lesions. Of the 12 patients eligible for PRRT, 11 were eventually treated and four of 11 patients received multiple PRRT administrations. Dosimetry resulted in a BED for kidney of 7.5 Gy (range, 4-21); bone marrow provisional dosage was 0.43 Gy (range, 0.1-1.7). Hematological PRRT toxicity occurred in three of 11 patients. No clinical or objective responses were observed with disease progression occurring approximately 48 days (range, 9-32) after PRRT. CONCLUSION: Radiolabeled SST-analog PET/CT demonstrated enhanced SSTR expression in 50% of cases. Nevertheless, PRRT in ED-SCLC was ineffective, suggesting the need to anticipate or combine PRRT in a multimodality approach.

[109]

TÍTULO / TITLE: - Enhancement of (-)-epigallocatechin-3-gallate and theaflavin-3-3'-digallate induced apoptosis by ascorbic acid in human lung adenocarcinoma SPC-A-1 cells and esophageal carcinoma Eca-109 cells via MAPK pathways.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biochem Biophys Res Commun. 2013 Jul 26. pii: S0006-291X(13)01240-0. doi: 10.1016/j.bbrc.2013.07.078.

●● [Enlace al texto completo \(gratis o de pago\) 1016/j.bbrc.2013.07.078](#)

AUTORES / AUTHORS: - Gao Y; Li W; Jia L; Li B; Chen YC; Tu Y

INSTITUCIÓN / INSTITUTION: - Department of Tea Science, Zhejiang University, 866 Yuhangtang Road, Hangzhou 310058, China.

RESUMEN / SUMMARY: - Tea polyphenols (-)-epigallocatechin-3-gallate (EGCG) and theaflavin-3-3'-digallate (TF3) are two prospective compounds in cancer prevention and treatment. Ascorbic acid (Vc) is essential to a healthy diet as well as being a highly effective antioxidant. In this work, the effects of the combination of EGCG or TF3 with Vc on the apoptosis and caspases-3/9 activities in human lung adenocarcinoma SPC-A-1 cells and esophageal carcinoma Eca-109 cells were determined. Furthermore, the role of mitogen-activated protein kinases (MAPK) pathways in the apoptosis induced by TF3 or EGCG together with Vc were studied using three MAPK inhibitors (ERK inhibitor PD98059, JNK inhibitor SP600125 and p38 inhibitor SB203580). Our results showed that Vc could enhance the EGCG and TF3 induced apoptosis in SPC-A-1 and Eca-109 cells, and this effect involved the activation of caspase-3 and 9. EGCG, TF3 and Vc could activate MAPK pathways respectively, and each compound activated different MAPK subfamilies in different cells. This may explain the enhancement of EGCG and TF3 induced apoptosis by Vc in SPC-A-1 Eca-109 cells, and will ultimately aid the design of more effective anti-cancer treatments.

[110]

TÍTULO / TITLE: - Phase 1 study of lenvatinib combined with carboplatin and paclitaxel in patients with non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Br J Cancer. 2013 Aug 6;109(3):538-44. doi: 10.1038/bjc.2013.374. Epub 2013 Jul 16.

●● Enlace al texto completo (gratis o de pago) [1038/bjc.2013.374](#)

AUTORES / AUTHORS: - Nishio M; Horai T; Horiike A; Nokihara H; Yamamoto N; Takahashi T; Murakami H; Yamamoto N; Koizumi F; Nishio K; Yusa W; Koyama N; Tamura T

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Medical Oncology, Cancer Institute Hospital of Japanese Foundation for Cancer Research, Ariake 3-8-31, Koto-ku 135-8550, Japan.

RESUMEN / SUMMARY: - Background: This dose-finding study evaluated lenvatinib, an oral multitargeted receptor tyrosine kinase inhibitor, in combination with carboplatin/paclitaxel in chemotherapy-naive non-small-cell lung cancer (NSCLC) patients. Patients and Methods: Patients received lenvatinib twice daily (BID) with carboplatin (area under the curve 6 mg ml⁻¹ min⁻¹, day 1)/paclitaxel (200 mg m⁻², day 1) every 3 weeks. The initial dose of lenvatinib was 6 mg BID. The primary end point was maximum tolerated dose (MTD) of lenvatinib. At the MTD, the cohort was expanded by 16 patients. Safety, pharmacokinetics, pharmacodynamics, and antitumor effects were

evaluated. Results: Twenty-eight patients were treated. At 6 mg BID, dose-limiting toxicities (DLTs) included febrile neutropenia/gingival infection (n=2). No DLTs occurred with 4 mg BID, the recommended MTD for the expansion. Common grade 3/4 toxicities included neutropenia, leukopenia, hypertension, and thrombocytopenia. The combination had no significant impact on individual drug pharmacokinetics. Response rate and median progression-free survival were 68% and 9.0 months, respectively, with 4 mg BID. In the plasma biomarker analysis, stromal cell-derived factor 1alpha, stem cell factor, and granulocyte colony-stimulating factor correlated with antitumor activity. Conclusion: The MTD for lenvatinib with carboplatin/paclitaxel is 4 mg BID in advanced NSCLC patients. This regimen demonstrated manageable tolerability and encouraging antitumor activity.

[111]

TÍTULO / TITLE: - Immunohistochemical expression of telomerase in patients with non-small cell lung cancer: prediction of metastasis and prognostic significance.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Jun;33(6):2643-50.

AUTORES / AUTHORS: - Aras G; Kanmaz D; Urer N; Purisa S; Kadakal F; Yenturk E; Tuncay E

INSTITUCIÓN / INSTITUTION: - Department of Chest Disease, Yedikule Chest Disease and Surgery Education and Research Hospital, Istanbul, Turkey.
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RESUMEN / SUMMARY: - AIM: To detect telomerase reverse transcriptase (TERT) expression in tissue and metastatic and non-metastatic lymph node samples from patients with non-small cell lung cancer; to evaluate whether TERT expression is correlated with pathological and clinical features, and/or patient survival times; to determine differences between TERT expression in metastatic and non-metastatic lymph nodes. PATIENTS AND METHODS: Tumor tissue samples from 17 patients with squamous cell lung cancer and 11 patients with adenocarcinoma diagnosed between 2003 and 2004 were included in this study. All patients were diagnosed at our hospital and had samples stored in the pathology archive. Additionally, dissected lymph node samples, with and without metastases, were studied. Telomerase Gene Tex, Inc, Irvine, CA USA (TERT (2C4) antibody), Universal Kit (Lab Vision, Newmarket, UK) were used for immunohistochemical staining. Statistical analyses were performed using SPSS 17.0 statistical software. RESULTS: TERT was positive in 18/28 of the samples, regardless of the histological tumor type. There was no significant correlation between TERT expression in lymph nodes with metastasis and clinical stage, histological type, tumor differentiation, or survival time. CONCLUSION: TERT expression may be used as a target for

therapy. It may also be helpful in predicting metastasis but not in predicting survival time.

[112]

TÍTULO / TITLE: - EGF Receptor Activates MET through MAPK to Enhance Non-Small Cell Lung Carcinoma Invasion and Brain Metastasis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Res. 2013 Aug 2.

●● Enlace al texto completo (gratis o de pago) 1158/0008-5472.CAN-12-3775

AUTORES / AUTHORS: - Breindel JL; Haskins JW; Cowell EP; Zhao M; Nguyen DX; Stern DF

INSTITUCIÓN / INSTITUTION: - Authors' Affiliations: Department of Pathology, Yale University School of Medicine; and Yale University; New Haven, Connecticut.

RESUMEN / SUMMARY: - MET amplification as a mechanism of acquired resistance to EGF receptor (EGFR)-targeted therapies in non-small cell lung carcinoma (NSCLC) led to investigation of novel combinations of EGFR and MET kinase inhibitors. However, promiscuous interactions between MET and ERBB family members have made it difficult to evaluate the effects of MET on EGFR signaling, both independent of drug treatment and in the context of drug resistance. We addressed this issue by establishing a 32D model cell system wherein ERBBs or MET are expressed alone and in combination. Using this model, we determined that EGFR signaling is sufficient to induce MET phosphorylation, although MET activation is enhanced by coexpression of ERBB3. EGFR-MET cross-talk was not direct, but occurred by a combined regulation of MET levels and intermediary signaling through mitogen-activated protein kinases (MAPK). In NSCLCs harboring either wild-type or mutant EGFR, inhibiting EGFR or MAPK reduced MET activation and protein levels. Furthermore, MET signaling promoted EGFR-driven migration and invasion. Finally, EGFR-MET signaling was enhanced in a highly metastatic EGFR-mutant cell subpopulation, compared with the indolent parental line, and MET attenuation decreased the incidence of brain metastasis. Overall, our results establish that EGFR-MET signaling is critical for aggressive behavior of NSCLCs and rationalize its continued investigation as a therapeutic target for tumors harboring both wild-type and mutant EGFR at early stages of progression. Cancer Res; 73(16); 1-13. ©2013 AACR.

[113]

TÍTULO / TITLE: - Identification of the NEDD4L Gene as a Prognostic Marker by Integrated Microarray Analysis of Copy Number and Gene Expression Profiling in Non-small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Surg Oncol. 2013 Jun 28.

●● Enlace al texto completo (gratis o de pago) [1245/s10434-013-3059-](https://doi.org/10.1245/s10434-013-3059-6)

[6](#)

AUTORES / AUTHORS: - Sakashita H; Inoue H; Akamine S; Ishida T; Inase N; Shirao K; Mori M; Mimori K

INSTITUCIÓN / INSTITUTION: - Department of Molecular and Surgical Oncology, Medical Institute of Bioregulation, Kyushu University, Beppu, Japan.

RESUMEN / SUMMARY: - **PURPOSE:** The purpose of this study was to identify prognostic genes by integrated microarray analysis between comparative genomic hybridization and gene expression with laser microdissection in non-small cell lung cancer (NSCLC). **METHODS:** Integrated microarray analysis in 11 lung adenocarcinomas was performed, and several genes were identified. Among them, neural precursor cell-expressed developmentally down-regulated 4-like (NEDD4L) was chosen for further characterization. Quantitative reverse transcriptase-polymerase chain reaction (RT-PCR) was used to explore the clinicopathological significance of NEDD4L expression in 84 NSCLC patients. **RESULTS:** 18q was more frequently lost in advanced lung cancer. Therefore, we selected the NEDD4L gene, located on chromosome 18q, for which reduced expression was significantly correlated with copy number loss. NEDD4L mRNA expression in paired tumor/normal samples from 79 cases of lung cancer was evaluated using real-time PCR analysis. NEDD4L mRNA expression was significantly lower in tumor tissues than in normal lung tissues ($p < 0.0001$). Clinicopathological factors, such as excessive smoking history, histological grade (moderately and poorly), T stage (T2-4), lymph node metastasis, and pathological stage (stage II-IV), were significantly associated with low NEDD4L expression ($p < 0.05$). In the low expression group, prognoses were significantly poorer than in the high expression group ($p < 0.05$). **CONCLUSIONS:** Low NEDD4L expression may be a marker of prognosis. This is the first report to describe NEDD4L expression in NSCLC. NEDD4L may be considered a key gene in the progression of NSCLC, and its expression is likely affected by genomic alterations.

[114]

TÍTULO / TITLE: - Outcomes of aggressive concurrent radiochemotherapy in highly selected septuagenarians with stage IIIB non-small cell lung carcinoma: Retrospective analysis of 89 patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Aug;81(2):226-30. doi: 10.1016/j.lungcan.2013.05.002. Epub 2013 May 29.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.002](https://doi.org/10.1016/j.lungcan.2013.05.002)

AUTORES / AUTHORS: - Topkan E; Parlak C; Topuk S; Guler OC; Selek U

INSTITUCIÓN / INSTITUTION: - Baskent University, Adana Medical Faculty, Department of Radiation Oncology, Adana, Turkey. Electronic address: docdretopkan@gmail.com.

RESUMEN / SUMMARY: - We retrospectively evaluated the toxicity and efficacy of concurrent radiochemotherapy (C-RCT) in medically fit septuagenarians with stage IIIB non-small cell lung carcinoma (NSCLC). Eighty-nine medically fit, stage IIIB NSCLC septuagenarians were included. Thoracic radiotherapy to a total dose of 66Gy in 2Gy fractions was delivered concurrently with 1-2 cycles of cisplatin-based doublet chemotherapy. Treatment was relatively well-tolerated with no grade 4/5 acute toxicity. Acute grade 3 hematologic and non-hematologic toxicity rates were 55.1 and 39.3%, respectively. Late toxicity was reported in 3 (3.4%) patients: esophagitis (N=2) and peripheral neuropathy (N=1). At median 21.7 months (4.4-42.1), 26 patients (29.2%) were alive. Median overall, local-regional progression-free and progression-free survivals were 17.7, 10.5 and 7.8 months, respectively. On univariate analyses, histology ($p<0.03$), nodal status ($p=0.038$), number of concomitant chemotherapy ($p<0.001$), and weight change during C-RCT ($p<0.001$) demonstrated significant association with overall survival; while only number of chemotherapy and weight change ($p<0.001$ for each) could retain their significance on multivariate analyses. Current results suggested that C-RCT in highly selected medically fit septuagenarians with LA-NSCLC may improve survival outcomes up to that achieved in younger patients, with a relatively acceptable toxicity profile.

[115]

TÍTULO / TITLE: - Preoperative plasma D-dimer levels predict survival in patients with operable non-small cell lung cancer independently of venous thromboembolism.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Surg Oncol. 2013 Jun 28. pii: S0748-7983(13)00418-6. doi: 10.1016/j.ejso.2013.06.008.

●● Enlace al texto completo (gratis o de pago) 1016/j.ejso.2013.06.008

AUTORES / AUTHORS: - Zhang PP; Sun JW; Wang XY; Liu XM; Li K

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Oncology, Tianjin Medical University Tumor Institute and Hospital, Tianjin Lung Cancer Diagnosis and Treatment Centre, Tianjin 300060, China; Department of Radiotherapy, Hubei Cancer Hospital, 430079 Wuhan, China.

RESUMEN / SUMMARY: - BACKGROUND AND AIMS: D-dimer is a stable end product of fibrin degradation that is associated with advanced tumor stage and poor prognosis in lung cancer patients. Venous thromboembolism (VTE) is a frequent complication of cancer and is associated with a poor prognosis in cancer patients. The purpose of the study is to elucidate whether the increased mortality in non-small cell lung (NSCLC) patients with elevated D-dimer levels is independent of VTE. PATIENTS AND METHODS: A retrospective review was

conducted of 232 patients with operable NSCLC from January 2007 to June 2008. All the patients underwent a pneumonectomy, lobectomy or wedge resection. We assessed the ability of preoperative plasma D-dimer levels to predict 1-year mortality and overall survival among them, and a multivariable Cox proportional-hazard regression analysis was performed after controlling for the following potential confounding factors: age, gender, TNM stage, histology, tumor size, VTE and surgical interventions. RESULTS: The overall 1-year survival rate was 91.4% (95% confidence interval (CI), 82.7-94.8%), with a 76.5% survival (95% CI, 71.4-81.6%) in the high D-dimer group and a 93.9% survival (95% CI, 86.4-97.9%) in the normal D-dimer group. Comparing the high D-dimer group with the normal D-dimer group, the adjusted hazard ratio for 1-year mortality and overall survival was 3.19 (95% CI, 1.18-7.12) and 1.54 (95% CI, 1.11-2.78) respectively. CONCLUSION: Our study concluded that the preoperative plasma D-dimer level is an important prognostic biomarker in patients with operable NSCLC that is independent of VTE.

[116]

TÍTULO / TITLE: - MicroRNA Profiling of Sendai Virus-Infected A549 Cells Identifies miR-203 as an Interferon-Inducible Regulator of IFIT1/ISG56.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Virol. 2013 Aug;87(16):9260-70. doi: 10.1128/JVI.01064-13. Epub 2013 Jun 19.

●● Enlace al texto completo (gratis o de pago) [1128/JVI.01064-13](#)

AUTORES / AUTHORS: - Buggele WA; Horvath CM

INSTITUCIÓN / INSTITUTION: - Department of Molecular Biosciences, Northwestern University, Evanston, Illinois, USA.

RESUMEN / SUMMARY: - The mammalian type I interferon (IFN) response is a primary barrier for virus infection and is essential for complete innate and adaptive immunity. Both IFN production and IFN-mediated antiviral signaling are the result of differential cellular gene expression, a process that is tightly controlled at transcriptional and translational levels. To determine the potential for microRNA (miRNA)-mediated regulation of the antiviral response, small-RNA profiling was used to analyze the miRNA content of human A549 cells at steady state and following infection with the Cantell strain of Sendai virus, a potent inducer of IFN and cellular antiviral responses. While the miRNA content of the cells was largely unaltered by infection, specific changes in miRNA abundance were identified during Sendai virus infection. One miRNA, miR-203, was found to accumulate in infected cells and in response to IFN treatment. Results indicate that miR-203 is an IFN-inducible miRNA that can negatively regulate a number of cellular mRNAs, including an IFN-stimulated gene target, IFIT1/ISG56, by destabilizing its mRNA transcript.

[117]

TÍTULO / TITLE: - Baseline and post-surgery endothelial progenitor cell levels in patients with early-stage non-small-cell lung carcinoma: impact on cancer recurrence and survival.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cardiothorac Surg. 2013 Jul 23.

●● [Enlace al texto completo \(gratis o de pago\) 1093/ejcts/ezt382](#)

AUTORES / AUTHORS: - Pirro M; Cagini L; Paciullo F; Pecoriello R; Mannarino MR; Bagaglia F; Capozzi R; Puma F; Mannarino E

INSTITUCIÓN / INSTITUTION: - Unit of Internal Medicine, Angiology and Arteriosclerosis Diseases, University of Perugia, Perugia, Italy.

RESUMEN / SUMMARY: - **OBJECTIVES:** Endothelial progenitor cells (EPCs) are believed to play a role in promoting abnormal vascularization in neoplastic sites. We measured the number of circulating EPCs in treatment-naive patients with early non-small-cell lung cancer (NSCLC) and healthy controls. The prospective influence of baseline and post-surgery EPC levels on cancer recurrence and survival was investigated. **METHODS:** Circulating EPCs were quantified by FACS analysis in 34 patients with Stage I-II NSCLC and 68 healthy age- and sex-matched controls. Measurement of EPCs was repeated 48 h after thoracic surgery and at the hospital discharge. Cancer recurrence and survival was evaluated after 446 +/- 106 days of follow-up (range 182-580 days). **RESULTS:** The base 10 logarithmic [log] number of circulating EPCs was comparable between patients with NSCLC and controls [mean +/- standard deviation (SD): 2.3 +/- 0.32 vs 2.3 +/- 0.26 n/ml, P = 0.776]. In regression analysis, smoking status [standardized coefficient beta (beta) = -0.26, 95% confidence interval (CI) for B -0.29/-0.03, P = 0.014] and systolic blood pressure [beta = -0.23, 95% CI for B -0.011/-0.001, P = 0.018] were independent predictors of the number of EPCs, irrespective of the NSCLC status. The mean number of EPCs did not change after surgical treatment. However, a post-surgery EPC increase was observed in 44% patients. Patients with a 48 h post-surgery EPC increase had a higher rate of cancer recurrence/death than patients with either stable or decreased post-surgery EPC levels [hazard ratio (HR) 4.4, 95% CI 1.1-17.3; P = 0.032], irrespective of confounders. **CONCLUSIONS:** Circulating EPC levels are comparable between patients with early-stage NSCLC and healthy controls. Overall, surgical cancer resection was not associated with a significant early EPC change. However, an early post-surgery EPC increase is able to predict an increased risk of cancer recurrence and death.

[118]

TÍTULO / TITLE: - The diagnostic accuracy of pleural effusion and plasma samples versus tumour tissue for detection of EGFR mutation in patients with advanced non-small cell lung cancer: comparison of methodologies.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Pathol. 2013 Jul 25.

●● Enlace al texto completo (gratis o de pago) [1136/jclinpath-2013-201728](http://dx.doi.org/10.1136/jclinpath-2013-201728)

AUTORES / AUTHORS: - Liu X; Lu Y; Zhu G; Lei Y; Zheng L; Qin H; Tang C; Ellison G; McCormack R; Ji Q

INSTITUCIÓN / INSTITUTION: - Affiliated Hospital of Academy of Military Medical Science, Beijing, China.

RESUMEN / SUMMARY: - **AIMS:** To evaluate the suitability of malignant pleural effusion (MPE) and plasma as surrogate samples for epidermal growth factor receptor (EGFR) mutation detection, and compare three different detection methods. **METHODS:** Matched tissue and plasma samples were collected from patients with advanced non-small cell lung cancer (NSCLC) (stage IIIB/IV adenocarcinoma/adenosquamous carcinoma), with matched MPE samples collected from a subgroup. DNA was extracted from tissue, MPE cell block, MPE supernatant and plasma before mutation detection by amplification refractory mutation system (ARMS) (all samples), Sanger sequencing and mutant-specific immunohistochemistry (IHC) (tissue and MPE cell blocks only). **RESULTS:** Sensitivity of MPE cell block, MPE supernatant and plasma versus tissue: 81.8% (9/11), 63.6% (7/11) and 67.5% (27/40); specificity was 80.0% (8/10), 100% (10/10) and 100% (46/46), respectively. Sensitivity of Sanger sequencing versus ARMS: 81.8% (27/33) for tissue, 40% (4/10) for MPE cell blocks; specificity was 100% (36/36 and 12/12) for both. Sensitivity of mutant-specific IHC versus ARMS: 54.8% (17/31) for tissue, 50.0% (6/12) for MPE cell blocks; specificity was 97.1% (34/35) and 100% (14/14), respectively. **CONCLUSIONS:** MPE and plasma are valid surrogates for NSCLC tumour EGFR mutation detection when tissue is not available. ARMS is most suitable for mutation detection in tissue and MPE cell blocks; however, mutant-specific IHC could be a complementary method when DNA-based molecular testing is unavailable.

[119]

TÍTULO / TITLE: - Relative expressions of miR-205-5p, miR-205-3p, and miR-21 in tissues and serum of non-small cell lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Cell Biochem. 2013 Jul 24.

●● Enlace al texto completo (gratis o de pago) [1007/s11010-013-1755-y](http://dx.doi.org/10.1007/s11010-013-1755-y)

AUTORES / AUTHORS: - Jiang M; Zhang P; Hu G; Xiao Z; Xu F; Zhong T; Huang F; Kuang H; Zhang W

INSTITUCIÓN / INSTITUTION: - Department of Respiration, The First Affiliated Hospital of Nanchang University, Nanchang, 330006, Jiangxi, China.

RESUMEN / SUMMARY: - Objective was to assess and compare the relative expressions of miR-205-5p, miR-205-3p, and miR-21-3p in tissues and serum

among non-small cell lung carcinoma (NSCLC) patients, benign pulmonary conditions patients, and healthy volunteers. Serum samples were obtained between October 2011 and September 2012 from 20 NSCLC patients undergoing surgical treatment, 20 patients diagnosed with a benign lung disease (pulmonary tuberculosis, pneumonia, chronic obstructive pulmonary disease, or interstitial pneumonia) (lesion group), and 20 healthy volunteers (control group). NSCLC patients provided cancer tissues and cancer-adjacent normal tissues during surgery (paired specimens). Quantitative RT-PCR was used to assess miR-205-5p, miR-205-3p, and miR-21-3p expressions in serum and tissue samples. The relative expressions of miR-205-5p and miR-205-3p were significantly higher in NSCLC tissues compared with cancer-adjacent paired specimens (both $P < 0.001$). In the serum, significantly higher miR-205-5p, miR-205-3p, and miR-21-3p relative expressions were observed in the NSCLC group compared with the two other groups (all $P < 0.001$). The relative expressions of miR-205-5p and miR-21-3p in NSCLC tissues and serum were significantly correlated ($r = 0.553$, $P = 0.011$; and $r = -0.541$, $P = 0.014$, respectively), while no significant correlation was observed for miR-205-3p ($P = 0.120$). Expressions of miR-205-5p and miR-205-3p in squamous cell carcinoma specimens were significantly higher than in lung adenocarcinoma specimens (both $P = 0.001$). Similarly, higher serum miR-205-5p and miR-205-3p levels were observed in squamous cell carcinoma patients ($P = 0.033$ and $P = 0.002$, respectively). In this preliminary and novel study, miR-205-5p was more useful as a marker for NSCLC than miR-205-3p or miR-21, indicating a potential for future applications in NSCLC diagnosis and prognosis.

[120]

TÍTULO / TITLE: - Overexpression of survivin levels in circulation and tissue samples of lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Aug;33(8):3475-80.

AUTORES / AUTHORS: - Kapellos G; Polonifi K; Farmakis D; Spartalis E; Tomos P; Aessopos A; Polizos A; Mantzourani M

INSTITUCIÓN / INSTITUTION: - First Department of Internal Medicine, University of Athens Medical School, Laiko Hospital, 17 Aghiou Thoma Street, 115 27 Athens, Greece. Mob: +30 6976805348, g.kapellos@hotmail.com.

RESUMEN / SUMMARY: - BACKGROUND: Survivin, an apoptosis inhibitor protein, has multiple functions that favor cancer cell survival. We sought to determine survivin levels in blood samples and biopsies from patients with lung cancer compared to normal individuals and healthy lung tissues respectively. PATIENTS AND METHODS: Blood samples were obtained from 32 patients with non-small cell lung cancer (NSCLC) and 49 healthy individuals. Tissue samples were also collected, 15 NSCLC biopsies and 15 histopathologically normal lung tissues. For quantitative evaluation of survivin mRNA expression

levels, the hybridization polymerase chain reaction (PCR) method was used. RESULTS: Overexpression of survivin was detected in all malignant samples. In spindle carcinomas survivin expression levels were higher than in adenocarcinomas ($p=0.009$) and squamous carcinomas ($p=0.026$). In moderately-differentiated tumors, survivin levels were higher compared to poorly differentiated ones. ($p=0.0054$). Disease's stage was not associated with survivin expression in blood and biopsies from patients with NSCLC. CONCLUSION: Survivin is overexpressed in blood and tissue of patients with NSCLC and is associated with histological type and tumor grade.

[121]

TÍTULO / TITLE: - A randomized, double-blind, phase II study of erlotinib with or without sunitinib for the second-line treatment of metastatic non-small-cell lung cancer (NSCLC).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Oncol. 2013 Jun 20.

●● Enlace al texto completo (gratis o de pago) [1093/annonc/mdt212](#)

AUTORES / AUTHORS: - Groen HJ; Socinski MA; Grossi F; Juhasz E; Gridelli C; Baas P; Butts CA; Chmielowska E; Usari T; Selaru P; Harmon C; Williams JA; Gao F; Tye L; Chao RC; Blumenschein GR Jr

INSTITUCIÓN / INSTITUTION: - Department of Pulmonary Diseases, University Medical Center Groningen, Groningen, The Netherlands.

RESUMEN / SUMMARY: - BACKGROUND: Combined inhibition of vascular, platelet-derived, and epidermal growth factor receptor (EGFR) pathways may overcome refractoriness to single agents in platinum-pretreated non-small-cell lung cancer (NSCLC). PATIENTS AND METHODS: This randomized, double-blind, multicenter, phase II trial evaluated sunitinib 37.5 mg/day plus erlotinib 150 mg/day versus placebo plus erlotinib continuously in 4-week cycles. Eligible patients had histologically confirmed stage IIIB or IV NSCLC previously treated with one or two chemotherapy regimens, including one platinum-based regimen. The primary end point was progression-free survival (PFS) by an independent central review. RESULTS: One hundred and thirty-two patients were randomly assigned, and the median duration of follow-up was 17.7 months. The median PFS was 2.8 versus 2.0 months for the combination versus erlotinib alone (HR 0.898, $P = 0.321$). The median overall survival (OS) was 8.2 versus 7.6 months (HR 1.066, $P = 0.617$). Objective response rates (ORRs) were 4.6% and 3.0%, respectively. Sunitinib plus erlotinib was fairly well tolerated although most treatment-related adverse events (AEs) were more frequent than with erlotinib alone: diarrhea (55% versus 33%), rash (41% versus 30%), fatigue (31% versus 25%), decreased appetite (30% versus 13%), nausea (28% versus 14%), and thrombocytopenia (13% versus 0%). CONCLUSIONS: The addition of sunitinib to erlotinib did not significantly improve PFS in patients with advanced, platinum-pretreated NSCLC.

[122]

TÍTULO / TITLE: - Malignant Peritoneal Mesothelioma Treated by Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy: Is GLUT1 Expression a Major Prognostic Factor? A Preliminary Study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Surg Oncol. 2013 Jun 26.

●● Enlace al texto completo (gratis o de pago) [1245/s10434-013-3077-](#)

[4](#)

AUTORES / AUTHORS: - Hommell-Fontaine J; Isaac S; Passot G; Decullier E; Traverse-Glehen A; Cotte E; You B; Mohamed F; Gilly FN; Glehen O; Berger F
INSTITUCIÓN / INSTITUTION: - Service de Chirurgie Generale, Centre Hospitalier Lyon Sud, Hospices Civils de Lyon, Pierre-Benite, France.

RESUMEN / SUMMARY: - PURPOSE: Diffuse malignant peritoneal mesothelioma (DMPM) is a rare primary peritoneal malignancy. Its prognosis has been improved by an aggressive locoregional treatment combining extensive cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC). Prognostic factors are currently poorly defined for this disease but are essential if treatment is to be standardized. METHODS: Twenty-eight patients with DMPM, who were considered preoperatively to be candidates for CRS and HIPEC between June 1998 and August 2010 at our institution, were selected for this study. Medical records and histopathological features were retrospectively reviewed and 24 clinical, histological, and immunohistochemical parameters were assessed for their association with overall survival by univariate and multivariate analyses. RESULTS: The following factors were significantly associated with overall survival by univariate analysis: predominant histological growth pattern in the epithelioid areas, nuclear grooves in the epithelioid areas, atypical mitoses, and calretinin and GLUT1 expression by immunohistochemistry in the epithelioid areas. Expression of the facilitative glucose transporter protein GLUT1 in the epithelioid areas was the only factor independently associated with overall survival by multivariate analysis. CONCLUSIONS: GLUT1 expression appears to be an indicator of poor prognosis in DMPM. Standard histological classification of DMPM may not be adequate to select patients for aggressive locoregional treatments, such as CRS and HIPEC. Multicenter validation of the prognostic factors identified in this preliminary study is needed to refine patient selection for potential cure.

[123]

TÍTULO / TITLE: - Pemetrexed and Cisplatin for Advanced Non-squamous Non-small Cell Lung Cancer in Japanese Patients: Phase II Study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Aug;33(8):3327-33.

AUTORES / AUTHORS: - Kawano Y; Ohyanagi F; Yanagitani N; Kudo K; Horiike A; Tanimoto A; Nishizawa H; Ichikawa A; Sakatani T; Nakatomi K; Hagiwara S; Ninomiya H; Motoi N; Ishikawa Y; Horai T; Nishio M

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Medical Oncology, Cancer Institute Hospital, 3-8-31 Ariake, Koto-ku, Tokyo 135-8550, Japan.

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RESUMEN / SUMMARY: - **BACKGROUND:** Although pemetrexed/cisplatin (P-C) is a standard treatment for advanced non-squamous non-small cell lung cancer (Nsq-NSCLC), neither its efficacy nor the effects of potential differences between driver mutations, such as the anaplastic lymphoma kinase (ALK) translocation and epidermal growth factor receptor (EGFR) mutations, have been thoroughly examined. **PATIENTS AND METHODS:** A single-arm phase II study of P-C was conducted in Japanese patients with chemo-naïve advanced Nsq-NSCLC. Patients received four cycles of pemetrexed (500 mg/m²) combined with cisplatin (75 mg/m²) on day 1 every three weeks. The primary end-point was the response rate (RR) and the secondary end-points were toxicity, progression-free survival (PFS), and overall survival (OS). **RESULTS:** A total of 50 patients were analyzed (males, 68%; adenocarcinoma, 80%). The RR was 44.0%. The median PFS and OS were 4.3 months and 22.2 months, respectively. Toxicities were mild, and no new toxicity profiles were identified. Among the 39 out of 50 samples, six (15.4%) presented ALK translocation and nine (23.1%) presented EGFR mutations; of the remaining patients, 24 (61.5%) were wild-type for both ALK and EGFR. Objective response was observed in two out of six patients with ALK translocations, six out of nine with EGFR mutations, and in 11 (45.8%) wild-type patients. **CONCLUSION:** The combination of pemetrexed and cisplatin was effective and safe in Japanese patients with Nsq-NSCLC. We did not observe obvious differences in the efficacy of P-C between patients with ALK translocation or EGFR mutation and those with wild-type genotype.

[124]

TÍTULO / TITLE: - Preoperative computed tomography of the chest in lung cancer patients: the predictive value of calcified lymph nodes for the perioperative outcomes of video-assisted thoracoscopic surgery lobectomy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur Radiol. 2013 Jul 9.

●● Enlace al texto completo (gratis o de pago) [1007/s00330-013-2962-](https://doi.org/10.1007/s00330-013-2962-3)

[3](#)

AUTORES / AUTHORS: - Jin KN; Moon HJ; Sung YW; Lee Y; Wi JY

INSTITUCIÓN / INSTITUTION: - Department of Radiology, Seoul Metropolitan Government-Seoul National University Boramae Medical Center, Seoul, Korea.

RESUMEN / SUMMARY: - **OBJECTIVES:** To determine the predictive value of identifying calcified lymph nodes (LNs) for the perioperative outcomes of video-

assisted thoracoscopic surgery (VATS). METHODS: Fifty-six consecutive patients who underwent VATS lobectomy for lung cancer were included. We evaluated the number and location of calcified LNs on computed tomography (CT). We investigated clinical parameters, including percentage forced expiratory volume in 1 s (FEV1%), surgery duration, chest tube indwelling duration, and length of hospital stay. We performed linear regression analysis and multiple comparisons of perioperative outcomes. RESULTS: Mean number of calcified LNs per patient was 0.9 (range, 0-6), mostly located in the hilar-interlobar zone (43.8 %). For surgery duration (mean, 5.0 h), FEV1% and emphysema severity were independent predictors (P = 0.010 and 0.003, respectively). The number of calcified LNs was an independent predictor for chest tube indwelling duration (P = 0.030) and length of hospital stay (P = 0.046). Mean duration of chest tube indwelling and hospital stay was 8.8 days and 12.7 days in no calcified LN group; 9.2 and 13.2 in 1 calcified LN group; 12.8 and 19.7 in ≥ 2 calcified LNs group, respectively. CONCLUSIONS: The presence of calcified LNs on CT can help predict more complicated perioperative course following VATS lobectomy. KEY POINTS: * Preoperative chest CT can help predict perioperative outcome following video-assisted thoracoscopic surgery. * Calcified lymph nodes should be assessed on CT to predict perioperative outcome. * Multiple calcified LNs are associated with longer chest drainage. * Hospital stay appears longer in patients with more calcified lymph nodes.

[125]

TÍTULO / TITLE: - Regulation of EGFR trafficking and cell signaling by Sprouty2 and MIG6 in lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cell Sci. 2013 Jul 18.

●● Enlace al texto completo (gratis o de pago) [1242/jcs.123208](https://doi.org/10.1242/jcs.123208)

AUTORES / AUTHORS: - Walsh AM; Lazzara MJ

RESUMEN / SUMMARY: - The duration and specificity of epidermal growth factor receptor (EGFR) activation and signaling are determinants of cellular decision processes and are tightly regulated by receptor dephosphorylation, internalization, and degradation. In addition, regulatory proteins that are upregulated or activated post-transcriptionally upon receptor activation may initiate feedback loops that play crucial roles in spatiotemporal regulation of signaling. We examined the roles of Sprouty2 (SPRY2) and mitogen-inducible gene 6 (MIG6), two feedback regulators of EGFR trafficking and signaling, in lung cancer cells with or without EGFR-activating mutations. These mutations are of interest because they confer unusual cellular sensitivity to EGFR inhibition through a mechanism involving an impairment of EGFR endocytosis. We found that the endocytosis of wild-type and mutant EGFR was promoted by SPRY2 knockdown and antagonized by MIG6 knockdown. SPRY2 knockdown

also significantly reduced extracellular signal-regulated kinase (ERK) phosphorylation, EGFR expression, and EGFR recycling. In a cell line expressing mutant EGFR, this effect on ERK led to a marked increase in cell death response to EGFR inhibition. The effects of SPRY2 knockdown on EGFR endocytosis and recycling were primarily the result of the concomitant change in EGFR expression, but this was not true for the observed changes in ERK phosphorylation. Thus, our study demonstrates that SPRY2 and MIG6 are important regulators of wild-type and mutant EGFR trafficking and points to an EGFR expression-independent function of SPRY2 in the regulation of ERK activity that may impact cellular sensitivity to EGFR inhibitors, especially in the context of EGFR mutation.

[126]

TÍTULO / TITLE: - Potentialities of aberrantly methylated circulating DNA for diagnostics and post-treatment follow-up of lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jun 24. pii: S0169-5002(13)00248-1. doi: 10.1016/j.lungcan.2013.05.016.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.016](#)

AUTORES / AUTHORS: - Ponomaryova AA; Rykova EY; Cherdyntseva NV; Skvortsova TE; Dobrodeev AY; Zav'yalov AA; Bryzgalov LO; Tuzikov SA; Vlassov VV; Laktionov PP

INSTITUCIÓN / INSTITUTION: - Cancer Research Institute of Siberian Branch of the Russian Academy of Medical Sciences, Tomsk, Russia. Electronic address: anastasia-ponomaryova@rambler.ru.

RESUMEN / SUMMARY: - To date, aberrant DNA methylation has been shown to be one of the most common and early causes of malignant cell transformation and tumors of different localizations, including lung cancer. Cancer cell-specific methylated DNA has been found in the blood of cancer patients, indicating that cell-free DNA circulating in the blood (cirDNA) is a convenient tumor-associated DNA marker that can be used as a minimally invasive diagnostic test. In the current study, we investigated the methylation status in blood samples of 32 healthy donors and 60 lung cancer patients before and after treatment with neoadjuvant chemotherapy followed by total tumor resection. Using quantitative methylation-specific PCR, we found that the index of methylation (IM), calculated as $IM = 100 \times [\text{copy number of methylated} / (\text{copy number of methylated} + \text{unmethylated gene})]$, for the RASSF1A and RARB2 genes in the cirDNA isolated from blood plasma and cell-surface-bound cirDNA was elevated 2- to 3-fold in lung cancer patients compared with healthy donors. Random forest classification tree model based on these variables combined (RARB2 and RASSF1A IM in both plasma and cell-surface-bound cirDNA) lead to NSCLC patients' and healthy subjects' differentiation with 87% sensitivity and 75%

specificity. An association of increased IM values with an advanced stage of non-small-cell lung cancer was found for RARB2 but not for RASSF1A. Chemotherapy and total tumor resection resulted in a significant decrease in the IM for RARB2 and RASSF1A, in both cirDNA fractions, comparable to the IM level of healthy subjects. Importantly, a rise in the IM for RARB2 was detected in patients within the follow-up period, which manifested in disease relapse at 9 months, confirmed with instrumental and pathologic methods. Our data indicate that quantitative analysis of the methylation status of the RARB2 and RASSF1A tumor suppressor genes in both cirDNA fractions is a useful tool for lung cancer diagnostics, evaluation of cancer treatment efficiency and post-treatment monitoring.

[127]

TÍTULO / TITLE: - Frequent overexpression of ErbB - receptor family members in brain metastases of non-small cell lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - APMIS. 2013 Jun 12. doi: 10.1111/apm.12063.

●● Enlace al texto completo (gratis o de pago) [1111/apm.12063](#)

AUTORES / AUTHORS: - Berghoff AS; Magerle M; Ilhan-Mutlu A; Dinhof C; Widhalm G; Dieckman K; Marosi C; Wohrer A; Hackl M; Zochbauer-Muller S; Preusser M; Birner P

INSTITUCIÓN / INSTITUTION: - Institute of Neurology, Medical University of Vienna, Vienna, Austria; Comprehensive Cancer Center, Vienna, Austria.

RESUMEN / SUMMARY: - The ErbB receptor family has been implicated in brain metastases (BM) formation in various cancer types and specific targeted therapies are available. We investigated the overexpression of EGFR, HER2 and HER3 in BM of non-small cell lung cancer (NSCLC) patients to get a better insight on pathobiology of BM and potential drugable targets. We performed immunohistochemical analysis of EGFR, HER2 and HER3 on tissue microarrays of 131 NSCLC-BM. Fifty-one of 131 (38.9%) specimens were considered as positive for EGFR overexpression, 12/131 (9.2%) for HER2 and 27/131 (20.6%) for HER3 respectively. Sixty-nine of 131 (52.7%) of the cases showed overexpression of at least one marker. Four of 131 (3.1%) were positive for all three markers. Strong correlation was observed between HER2 and HER3 overexpression ($p = 0.009$; Chi-square test after Bonferroni-Holmes correction). No statistically significant correlation of EGFR, HER2 or HER3 overexpression with clinico-pathological parameters including overall survival times was observed. We observed overexpression of ErbB receptor family members, which represent established therapeutic targets in various primary tumours, in approximately half of NSCLC-BM. Further studies should investigate the role of the ErbB pathway in development of and as a therapeutic target in BM of NSCLC patients.

[128]

TÍTULO / TITLE: - Expression and clinical role of small glutamine-rich tetratricopeptide repeat (TPR)-containing protein alpha (SGTA) as a novel cell cycle protein in NSCLC.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cancer Res Clin Oncol. 2013 Jul 16.

●● Enlace al texto completo (gratis o de pago) [1007/s00432-013-1474-](#)

[5](#)

AUTORES / AUTHORS: - Xue Q; Lv L; Wan C; Chen B; Li M; Ni T; Liu Y; Liu Y; Cong X; Zhou Y; Ni R; Mao G

INSTITUCIÓN / INSTITUTION: - Department of Cardiothoracic Surgery, Affiliated Hospital of Nantong University, Nantong, Jiangsu, 226001, China.

RESUMEN / SUMMARY: - **PURPOSE:** A small glutamine-rich tetratricopeptide repeat-containing protein alpha (SGTA) is a 35 kDa protein involved in a number of biological processes. However, the role of SGTA in non-small-cell lung cancer (NSCLC) tumorigenesis has never been elucidated. The purpose of this study was to determine whether SGTA could serve as a biomarker for stratification and prediction of prognosis in NSCLC. **METHODS:** Small glutamine-rich tetratricopeptide repeat-containing protein alpha expression was evaluated by Western blot in 8 paired fresh lung cancer tissues and immunohistochemistry on 83 paraffin-embedded sections. The effect of SGTA was assessed by RNA interference in A549 cells. Serum starvation and refeeding, flow cytometry, CCK-8, and tunnel assays were performed. **RESULTS:** Small glutamine-rich tetratricopeptide repeat-containing protein alpha was highly expressed in NSCLC and significantly correlated with NSCLC histological differentiation, clinical stage, and Ki-67. Multivariate analysis indicated that SGTA was an independent prognostic factor for NSCLC patients' survival. The present investigation demonstrated that suppression of SGTA expression resulted in a significant decline of proliferation in A549 cells. Besides, SGTA could abolish the toxicity of cisplatin in A549 cells. **CONCLUSIONS:** These findings suggested that SGTA might play an important role in promoting the tumorigenesis of NSCLC, and thus be a promising therapeutic target to prevent NSCLC progression.

[129]

TÍTULO / TITLE: - Arginase-1 mRNA expression correlates with myeloid-derived suppressor cell levels in peripheral blood of NSCLC patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 11. pii: S0169-5002(13)00262-6. doi: 10.1016/j.lungcan.2013.06.005.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.06.005](#)

AUTORES / AUTHORS: - Heuvers ME; Muskens F; Bezemer K; Lambers M; Dingemans AM; Groen HJ; Smit EF; Hoogsteden HC; Hegmans JP; Aerts JG

INSTITUCIÓN / INSTITUTION: - Department of Pulmonary Medicine, Erasmus Medical University Center, Rotterdam, The Netherlands. Electronic address: m.heuvers@erasmusmc.nl.

RESUMEN / SUMMARY: - Myeloid-derived suppressor cells (MDSC) are a heterogeneous population of immature and progenitor myeloid cells with immunosuppressive activity that are increased in cancer patients. Until now, the characterization of MDSC in humans was very challenging. The aim of this study was to determine the characterization and optimal assessment of MDSC and to investigate their presence and function in blood of advanced-stage NSCLC patients. We determined MDSC and lymphocyte populations in peripheral blood mononuclear cells (PBMC) samples of 185 treatment-naive NSCLC patients and 20 healthy controls (HC). NSCLC patients had an increased population of PMN-MDSC compared to HC ($p < 0.0001$). Frequencies of CD4+ and CD8+ T-cells were significantly decreased in NSCLC patients ($p < 0.0001$ and $p = 0.05$). We found that PMN-MDSC were able to suppress T-cell proliferation in vitro. qRT-PCR showed that arginase-1 (Arg-1) mRNA is mainly expressed by MDSC and that the level of Arg-1 in PBMC correlates with the frequency of MDSC in PBMC (Spearman's rho: 0.797). There were significant differences in MDSC and lymphocyte populations between NSCLC patients and HC. We found that MDSC frequencies are stable up to six hours at room temperature after blood was drawn and that cryopreservation leads to a strong decrease of MDSC in PBMC. We show that Arg-1 mRNA expression is a valuable method to determine the levels of MDSC in peripheral blood of cancer patients. This method is therefore a useful alternative for the complex flowcytometric analysis in large multicenter patient studies.

[130]

TÍTULO / TITLE: - Dramatic Response Induced by Vemurafenib in a BRAF V600E-Mutated Lung Adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Oncol. 2013 Jul 10;31(20):e341-4. doi: 10.1200/JCO.2012.47.6143. Epub 2013 Jun 3.

●● Enlace al texto completo (gratis o de pago)

[1200/JCO.2012.47.6143](#)

AUTORES / AUTHORS: - Peters S; Michielin O; Zimmermann S

INSTITUCIÓN / INSTITUTION: - Centre Hospitalier Universitaire Vaudois, Oncology Department, CHUV BH06, Rue du Bugnon 46, 1011 Lausanne, Switzerland; Stefan.zimmermann@chuv.ch.

[131]

TÍTULO / TITLE: - Inhibitor-Sensitive FGFR2 and FGFR3 Mutations in Lung Squamous Cell Carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Res. 2013 Aug 2.

●● Enlace al texto completo (gratis o de pago) [1158/0008-5472.CAN-12-3950](#)

AUTORES / AUTHORS: - Liao RG; Jung J; Tchaicha J; Wilkerson MD; Sivachenko A; Beauchamp EM; Liu Q; Pugh TJ; Pedamallu CS; Hayes DN; Gray NS; Getz G; Wong KK; Haddad RI; Meyerson M; Hammerman PS

INSTITUCIÓN / INSTITUTION: - Authors' Affiliations: Departments of Medical Oncology and Biological Chemistry and Molecular Pharmacology, Dana-Farber Cancer Institute, Boston; The Broad Institute of Harvard and MIT, Cambridge, Massachusetts; and Lineberger Comprehensive Cancer Center, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

RESUMEN / SUMMARY: - A comprehensive description of genomic alterations in lung squamous cell carcinoma (lung SCC) has recently been reported, enabling the identification of genomic events that contribute to the oncogenesis of this disease. In lung SCC, one of the most frequently altered receptor tyrosine kinase families is the fibroblast growth factor receptor (FGFR) family, with amplification or mutation observed in all four family members. Here, we describe the oncogenic nature of mutations observed in FGFR2 and FGFR3, each of which are observed in 3% of samples, for a mutation rate of 6% across both genes. Using cell culture and xenograft models, we show that several of these mutations drive cellular transformation. Transformation can be reversed by small-molecule FGFR inhibitors currently being developed for clinical use. We also show that mutations in the extracellular domains of FGFR2 lead to constitutive FGFR dimerization. In addition, we report a patient with an FGFR2-mutated oral SCC who responded to the multitargeted tyrosine kinase inhibitor pazopanib. These findings provide new insights into driving oncogenic events in a subset of lung squamous cancers, and recommend future clinical studies with FGFR inhibitors in patients with lung and head and neck SCC. Cancer Res; 73(16); 1-11. ©2013 AACR.

[132]

TÍTULO / TITLE: - Etoposide and temozolomide in combination for the treatment of progressive small-cell lung cancer central nervous system metastases: two cases.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumori. 2013 Mar-Apr;99(2):e73-6. doi: 10.1700/1283.14212.

●● Enlace al texto completo (gratis o de pago) [1700/1283.14212](#)

AUTORES / AUTHORS: - Lukas RV; Vigneswaran J; Salgia R

INSTITUCIÓN / INSTITUTION: - Department of Neurology, University of Chicago, Chicago, IL, USA. rlukas@neurology.bsd.uchicago.edu

RESUMEN / SUMMARY: - INTRODUCTION: Progression of central nervous system (CNS) metastases from small cell lung cancer (SCLC) after radiation therapy is associated with a poor prognosis. CASE REPORTS: We present two cases of patients with progressive CNS metastases from SCLC treated with oral temozolomide and etoposide. Sustained clinical responses and radiographic stability were demonstrated. The palliative chemotherapy regimen was well tolerated. DISCUSSION: A regimen of oral temozolomide and etoposide for progressive CNS metastases from SCLC is well tolerated and may be associated with sustained stability of disease.

[133]

TÍTULO / TITLE: - Next-generation sequencing of paired tyrosine kinase inhibitor-sensitive and -resistant EGFR mutant lung cancer cell lines identifies spectrum of DNA changes associated with drug resistance.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Genome Res. 2013 Aug 5.

●● [Enlace al texto completo \(gratis o de pago\) 1101/gr.152322.112](#)

AUTORES / AUTHORS: - Jia P; Jin H; Meador CB; Xia J; Ohashi K; Liu L; Pirazzoli V; Dahlman KB; Politi K; Michor F; Zhao Z; Pao W

INSTITUCIÓN / INSTITUTION: - Department of Biomedical Informatics.

RESUMEN / SUMMARY: - Somatic mutations in kinase genes are associated with sensitivity of solid tumors to kinase inhibitors, but patients with metastatic cancer eventually develop disease progression. In EGFR mutant lung cancer, modeling of acquired resistance (AR) with drug-sensitive cell lines has identified clinically relevant EGFR tyrosine kinase inhibitor (TKI) resistance mechanisms such as the second-site mutation, EGFR T790M, amplification of the gene encoding an alternative kinase, MET, and epithelial-mesenchymal transition (EMT). The full spectrum of DNA changes associated with AR remains unknown. We used next-generation sequencing to characterize mutational changes associated with four populations of EGFR mutant drug-sensitive and five matched drug-resistant cell lines. Comparing resistant cells with parental counterparts, 18-91 coding SNVs/indels were predicted to be acquired and 1-27 were lost; few SNVs/indels were shared across resistant lines. Comparison of two related parental lines revealed no unique coding SNVs/indels, suggesting that changes in the resistant lines were due to drug selection. Surprisingly, we observed more CNV changes across all resistant lines, and the line with EMT displayed significantly higher levels of CNV changes than the other lines with AR. These results demonstrate a framework for studying the evolution of AR and provide the first genome-wide spectrum of mutations associated with the development of cellular drug resistance in an oncogene-addicted cancer. Collectively, the data suggest that CNV changes

may play a larger role than previously appreciated in the acquisition of drug resistance and highlight that resistance may be heterogeneous in the context of different tumor cell backgrounds.

[134]

TÍTULO / TITLE: - Prognostic impact of lymphovascular invasion compared with that of visceral pleural invasion in patients with pN0 non-small-cell lung cancer and a tumor diameter of 2 cm or smaller.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Surg Res. 2013 Jun 22. pii: S0022-4804(13)00585-4. doi: 10.1016/j.jss.2013.05.104.

●● Enlace al texto completo (gratis o de pago) [1016/j.jss.2013.05.104](#)

AUTORES / AUTHORS: - Tao H; Hayashi T; Sano F; Takahagi A; Tanaka T; Matsuda E; Okabe K

INSTITUCIÓN / INSTITUTION: - Division of Thoracic Surgery, NHO Yamaguchi-Ube Medical Center, Ube, Japan. Electronic address: htao@yamaguchi-hosp.jp.

RESUMEN / SUMMARY: - BACKGROUND: Both visceral pleural invasion (VPI) and lymphovascular invasion (LVI) have been shown to be adverse prognostic factors for early-stage non-small-cell lung cancer (NSCLC). Positive VPI upstages the T category of tumors ≤ 2 cm (T1a) to T2a, whereas LVI is not adapted as a descriptor for the Tumor, Node, Metastasis classification system. This study was conducted to evaluate the prognostic impacts of VPI and LVI in patients with pN0 NSCLC and a tumor diameter of ≤ 2 cm. METHODS: We reviewed records of a total of 142 patients with pN0 NSCLC and a tumor diameter of ≤ 2 cm, who underwent lobectomy with hilar and mediastinal lymph node dissection between January 2001 and December 2009. We conducted univariate and multivariate analyses to evaluate the impact of VPI, LVI, and other clinicopathologic factors on survival. RESULTS: Visceral pleural invasion and LVI were diagnosed as positive in 18 (12.7%) and 22 (15.5%) patients, respectively. Male sex, squamous cell carcinoma, positive VPI, and positive LVI were risk factors for overall survival. Squamous cell carcinoma, positive VPI, and positive LVI were risk factors for relapse-free survival. In multivariate analysis, squamous cell carcinoma and positive LVI were independent risk factors for overall survival, and positive LVI was an independent risk factor for relapse-free survival. CONCLUSIONS: Positive LVI was more important than VPI as a prognostic factor in patients with pN0 NSCLC and a tumor diameter of ≤ 2 cm. Adjuvant chemotherapy should be considered for such patients, to improve the treatment outcomes.

[135]

TÍTULO / TITLE: - Cisplatin chemotherapy induces odor perception changes in bronchial cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 26. pii: S0169-5002(13)00266-3. doi: 10.1016/j.lungcan.2013.06.009.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.06.009](#)

AUTORES / AUTHORS: - Joussain P; Giboreau A; Fontas M; Laville M; Hummel T; Souquet PJ; Bensafi M

INSTITUCIÓN / INSTITUTION: - CNRS, UMR5292, INSERM U1028, Lyon Neuroscience Research Center, University Lyon, F-69000, France. Electronic address: uline.joussain@olfac.univ-lyon1.fr.

RESUMEN / SUMMARY: - A study of olfactory function was performed in 15 bronchial cancer patients receiving cisplatin and 15 control subjects. Whereas odor detection and odor identification abilities were not influenced by the administration of cisplatin, a decrease in pleasantness was observed only for food odors, and not for non-food odors. Taken as a whole, these findings suggest that cisplatin therapy in bronchial cancer patients impairs the pleasure of perceived food odors, which may account for disturbances in food intake and quality of life in this population.

[136]

TÍTULO / TITLE: - A functional polymorphism in the promoter of ERK5 gene interacts with tobacco smoking to increase the risk of lung cancer in Chinese populations.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mutagenesis. 2013 Jun 26.

●● Enlace al texto completo (gratis o de pago) [1093/mutage/get033](#)

AUTORES / AUTHORS: - Qiu F; Yang L; Fang W; Li Y; Yang R; Yang X; Deng J; Huang B; Xie C; Zhou Y; Lu J

INSTITUCIÓN / INSTITUTION: - The Institute for Chemical Carcinogenesis, The State Key Lab of Respiratory Disease, Guangzhou Medical University, 195 Dongfengxi Road, Guangzhou 510182, People's Republic of China.

RESUMEN / SUMMARY: - Mitogen/extracellular signal-regulated kinase-5 (MEK5)/extracellular signal-regulated protein kinase-5 (ERK5) pathway plays a pro-oncogenic role in tumorigenesis by anticell apoptosis, promoting cell proliferation and differentiation in response to extracellular stimuli. As overexpressed MEK5/ERK5 is involved in the development of lung cancer, we hypothesised that the single nucleotide polymorphisms (SNPs) in MEK5 and ERK5 genes may influence gene expression and thus be associated with lung cancer risk. Five putative functional polymorphisms (rs3743353T>C, rs7172582C>T and rs2278076A>G of MEK5 and rs3866958G>T and rs2233083C>T of ERK5) were genotyped in two independent case-control studies with a total of 1559 lung cancer patients and 1679 controls in southern and eastern Chinese population. We found the rs3866958G>T of ERK5 was

significantly associated with lung cancer risk, while other SNPs were not. Compared with the rs3866958TG/TT genotypes, the GG genotype conferred an increased risk of lung cancer (odds ratio = 1.30, 95% confidence interval = 1.12-1.51, $P = 5.0 \times 10^{-4}$), and this effect was more pronounced in smokers, accompanying with a significant interaction with smoking (P interaction = 0.013). The GG genotype also had significant higher mRNA levels of ERK5 in lung cancer tissues than TG/TT genotypes ($P = 1.0 \times 10^{-4}$); the luciferase reporter with the G allele showed significant higher transcription activities than the T allele, especially after the treatment with tobacco extract in vitro. Our data indicated that the functional polymorphism rs3866958G>T in ERK5 was associated with an increased lung cancer risk in smokers by virtue of the positive interaction with smoking on promoting the ERK5 expression, which might be a valuable indicator for predicting lung cancer risk in smokers.

[137]

TÍTULO / TITLE: - miR-205 Targets PTEN and PHLPP2 to Augment AKT Signaling and Drive Malignant Phenotypes in Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Res. 2013 Aug 7.

●● Enlace al texto completo (gratis o de pago) [1158/0008-5472.CAN-13-0297](#)

AUTORES / AUTHORS: - Cai J; Fang L; Huang Y; Li R; Yuan J; Yang Y; Zhu X; Chen B; Wu J; Li M

INSTITUCIÓN / INSTITUTION: - Authors' Affiliations: Departments of Microbiology and Pharmacology, Zhongshan School of Medicine; Key Laboratory of Tropical Disease Control, Ministry of Education; and Key Laboratory of Functional Molecules from Oceanic Microorganisms, Department of Education of Guangdong Province, Sun Yat-Sen University, Guangzhou, Guangdong, China.

RESUMEN / SUMMARY: - AKT signaling is constitutively activated in various cancers, due in large part to loss-of-function in the PTEN and PHLPP phosphatases that act as tumor suppressor genes. However, AKT signaling is activated widely in non-small cell lung cancers (NSCLC) where genetic alterations in PTEN or PHLPP genes are rare, suggesting an undefined mechanism(s) for their suppression. In this study, we report upregulation of the oncomir microRNA (miR)-205 in multiple subtypes of NSCLC, which directly represses PTEN and PHLPP2 expression and activates both the AKT/FOXO3a and AKT/mTOR signaling pathways. miR-205 overexpression in NSCLC cells accelerated tumor cell proliferation and promoted blood vessel formation in vitro and in vivo. Conversely, RNA interference-mediated silencing of endogenous miR-205 abrogated these effects. The malignant properties induced by miR-205 in NSCLC cells were reversed by AKT inhibitors, FOXO3a overexpression, rapamycin treatment, or restoring PHLPP2 or PTEN expression. Mechanistic investigations revealed that miR-205 overexpression was a result of NF-

kappaB-mediated transactivation of the miR-205 gene. Taken together, our results define a major epigenetic mechanism for suppression of PTEN and PHLPP2 in NSCLC, identifying a pivotal role for miR-205 in development and progression of this widespread disease. Cancer Res; 1-14. ©2013 AACR.

[138]

TÍTULO / TITLE: - EGFR activating mutations detected by different PCR techniques in Caucasian NSCLC patients with CNS metastases: short report.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Exp Metastasis. 2013 Jul 27.

- Enlace al texto completo (gratis o de pago) 1007/s10585-013-9603-8

AUTORES / AUTHORS: - Kamila WK; Michal S; Pawel K; Paulina J; Tomasz K; Bozena J; Radoslaw M; Justyna S; Marek S; Trojanowski T; Janusz M; Joanna CW

INSTITUCIÓN / INSTITUTION: - Pneumology, Oncology and Allergology Department, Medical University of Lublin, Jaczewskiego 8, 20-954, Lublin, Poland, kamilawojas@wp.pl.

RESUMEN / SUMMARY: - EGFR mutation testing has become an essential determination to decide treatment options for NSCLC. The mutation analysis is often conducted in samples with low percentage of tumour cells from primary tumour biopsies. There is very little evidence that samples from metastatic tissues are suitable for EGFR testing. We had evaluated the frequency of EGFR mutations with three highly sensitive PCR techniques in formalin-fixed, paraffin-embedded samples of 143 NSCLC patients with central nervous system (CNS) metastases. 32 corresponding primary tumours were also examined. We used PCR followed by DNA fragments length analysis (FLA), ASP-PCR and PNA-LNA PCR clamp techniques. We found 9 (6.29 %) EGFR gene mutations in CNS samples: 3 (2.1 %) in exon 19 and 6 (4.2 %) in exon 21. The full concordance between CNS metastases and primary tumour samples was observed. PCR followed by DNA-FLA and PNA-LNA PCR clamp were sensitive enough to detect exon 19 deletions. Two mutations in exon 21 were detected by ASP-PCR only, one L858R substitution was detected only by PNA-LNA PCR clamp. With respect to sensitivity, PCR followed by DNA-FLA achieved a level of detection of at least 10 % of mutated DNA for exon 19 deletion, as for ASP-PCR it was at least 5 % of mutated DNA for L858R substitution. Higher sensitivity of 1 % of mutated DNA was achieved by PNA-LNA PCR clamp technique for both mutations. The use of different methodological techniques authenticates the negative result of molecular tests.

[139]

TÍTULO / TITLE: - Prevalence of Diabetes Mellitus and Its Impact on Disease Severity in Adult Recurrent Respiratory Papillomatosis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Otolaryngol Head Neck Surg. 2013 Jul 12.

●● Enlace al texto completo (gratis o de pago)

[1177/0194599813496969](#)

AUTORES / AUTHORS: - Lee CJ; Allen CT; Merati AL

INSTITUCIÓN / INSTITUTION: - Department of Otolaryngology/Head and Neck Surgery, Shin-Kong Wu-Ho-Su Memorial Hospital, Taipei, Taiwan.

RESUMEN / SUMMARY: - Objectives Following human papilloma virus (HPV) infection, recurrent respiratory papillomatosis (RRP) develops secondary to dysfunction of innate and adaptive immune responses. Diabetes mellitus (DM) is a common medical disorder; these patients are considered to be relatively immunocompromised. It is hypothesized that comorbid DM occurs more frequently than expected in a cohort of adult RRP patients and that RRP patients with DM have more severe disease than those without DM. Study Design Retrospective cohort study. Setting Tertiary care laryngology practice, 5-year period. Subjects and Methods Adult-onset RRP patients from 2007 to 2012 at the University of Washington were reviewed. The gender, age of onset of RRP, number of interventions, pathology, presence or absence of DM, and calculated anatomic Derkay severity score were recorded. Results Eighty-four adult RRP patients were characterized; 64 male (76%) and 20 female (24%). Six of 84 patients (7.1%) had DM; this prevalence was not higher than an age-matched general population. The number of interventions required for disease control did not significantly differ ($P = .13$) between adult RRP patients with DM (avg 2.6/yr, median 2.3/year) and those without DM (avg 1.9/yr, median 1.3/yr). There was no significant difference in anatomic Derkay score at the time of intervention ($P = .26$) or presence of dysplasia in biopsy specimens ($P = .49$) between RRP patients with and without DM. Conclusions In this large series of adult RRP patients, DM does not appear to have a higher prevalence than that seen in age-matched controls, nor do RRP patients with DM appear to have more severe disease.

[140]

TÍTULO / TITLE: - The first survival score for patients with brain metastases from small cell lung cancer (SCLC).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Neurol Neurosurg. 2013 Jul 18. pii: S0303-8467(13)00228-X. doi: 10.1016/j.clineuro.2013.06.019.

●● Enlace al texto completo (gratis o de pago)

[1016/j.clineuro.2013.06.019](#)

AUTORES / AUTHORS: - Rades D; Dziggel L; Segedin B; Oblak I; Nagy V; Marita A; Schild SE

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, University of Lubeck, Lubeck, Germany. Electronic address: Rades.Dirk@gmx.net.

RESUMEN / SUMMARY: - **OBJECTIVE:** Survival scores can help physicians select appropriate treatment for patients with brain metastasis. Primary tumors have different biological behavior justifying separate scoring systems for different tumors. In this study, a survival score was developed for patients with brain metastasis from SCLC. **METHODS:** Data of 172 patients receiving whole-brain radiotherapy alone for brain metastasis from SCLC were included. Patients were assigned to a test (N=86) or a validation group (N=86). In the test group, Karnofsky Performance Score, number of brain metastases, and extracranial metastasis were associated with survival and included in the score. Scores for each factor were obtained from the 6-month survival rate divided by 10. According to the total scores, which represented the sum of the three scores, three prognostic groups were formed. **RESULTS:** 6-Month survival rates in the test group were 3% for 5-8 points, 40% for 9-12 points, and 89% for 15 points ($p < 0.001$). In the validation group, 6-month survival rates were 3%, 41%, and 89% ($p < 0.001$). The comparisons between the three prognostic groups of the test group and the validation group did not show significant differences. **CONCLUSIONS:** This new score appears valid and reproducible. It can be used to personalize the treatment to patients with brain metastasis from SCLC.

[141]

TÍTULO / TITLE: - High-dose hypofractionated proton beam radiation therapy is safe and effective for central and peripheral early-stage non-small cell lung cancer: results of a 12-year experience at loma linda university medical center.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Radiat Oncol Biol Phys. 2013 Aug 1;86(5):964-8. doi: 10.1016/j.ijrobp.2013.05.002.

●● Enlace al texto completo (gratis o de pago)

1016/j.ijrobp.2013.05.002

AUTORES / AUTHORS: - Bush DA; Cheek G; Zaheer S; Wallen J; Mirshahidi H; Katerelos A; Grove R; Slater JD

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Loma Linda University Medical Center, Loma Linda, California. Electronic address: dbush@llu.edu.

RESUMEN / SUMMARY: - **PURPOSE:** We update our previous reports on the use of hypofractionated proton beam radiation therapy for early-stage lung cancer patients. **METHODS AND MATERIALS:** Eligible subjects had biopsy-proven non-small cell carcinoma of the lung and were medically inoperable or refused surgery. Clinical workup required staging of T1 or T2, N0, M0. Subjects received hypofractionated proton beam therapy to the primary tumor only. The dose delivered was sequentially escalated from 51 to 60 Gy, then to 70 Gy in 10 fractions over 2 weeks. Endpoints included toxicity, pulmonary function,

overall survival (OS), disease-specific survival (DSS), and local control (LC).
RESULTS: One hundred eleven subjects were analyzed for treatment outcomes. The patient population had the following average characteristics; age 73.2 years, tumor size 3.6 cm, and 1.33 L forced expiratory volume in 1 second. The entire group showed improved OS with increasing dose level (51, 60, and 70 Gy) with a 4-year OS of 18%, 32%, and 51%, respectively (P=.006). Peripheral T1 tumors exhibited LC of 96%, DSS of 88%, and OS of 60% at 4 years. Patients with T2 tumors showed a trend toward improved LC and survival with the 70-Gy dose level. On multivariate analysis, larger tumor size was strongly associated with increased local recurrence and decreased survival. Central versus peripheral location did not correlate with any outcome measures. Clinical radiation pneumonitis was not found to be a significant complication, and no patient required steroid therapy after treatment for radiation pneumonitis. Pulmonary function was well maintained 1 year after treatment.
CONCLUSIONS: High-dose hypofractionated proton therapy achieves excellent outcomes for lung carcinomas that are peripherally or centrally located. The 70-Gy regimen has been adopted as standard therapy for T1 tumors at our institution. Larger T2 tumors show a trend toward improved outcomes with higher doses, suggesting that better results could be seen with intensified treatment.

[142]

TÍTULO / TITLE: - A patient with lung cancer presenting with respiratory failure and shock.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chest. 2013 Jul 1;144(1):e1-4. doi: 10.1378/chest.13-0375.

●● Enlace al texto completo (gratis o de pago) [1378/chest.13-0375](#)

AUTORES / AUTHORS: - Wiesen J; Raman D; Adams J; Choudhary C; Moghekar A

[143]

TÍTULO / TITLE: - The Impact of Genomic Changes on Treatment of Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Respir Crit Care Med. 2013 Jul 10.

●● Enlace al texto completo (gratis o de pago) [1164/rccm.201305-0843PP](#)

AUTORES / AUTHORS: - Cardarella S; Johnson BE

INSTITUCIÓN / INSTITUTION: - Dana-Farber Cancer Institute, Lowe Center for Thoracic Oncology, Boston, Massachusetts, United States ; scardarella@partners.org.

RESUMEN / SUMMARY: - The remarkable success of EGFR and ALK tyrosine kinase inhibitors in patients with EGFR mutations and ALK rearrangements, respectively, introduced the era of targeted therapy in advanced non-small cell lung cancer (NSCLC), shifting treatment from platinum-based combination chemotherapy to molecularly tailored therapy. Recent genomic studies in lung adenocarcinoma identified other potential therapeutic targets, including ROS1 rearrangements, RET fusions, MET amplification, and activating mutations in BRAF, HER2, and KRAS in frequencies exceeding 1%. Lung cancers that harbor these genomic changes can potentially be targeted with agents approved for other indications or under clinical development. The need to generate increasing amounts of genomic information should prompt health care providers to be mindful of the amounts of tissue needed for these assays when planning diagnostic procedures. In this review, we summarize oncogenic drivers in NSCLC that can be currently detected, highlight their potential therapeutic implications, and discuss practical considerations for successful application of tumor genotyping in clinical decision-making.

[144]

TÍTULO / TITLE: - N-acetylcysteine amide, a thiol antioxidant, prevents bleomycin-induced toxicity in human alveolar basal epithelial cells (A549).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Free Radic Res. 2013 Jul 24.

●● Enlace al texto completo (gratis o de pago)

[3109/10715762.2013.819974](#)

AUTORES / AUTHORS: - Tobwala S; Fan W; Stoeger T; Ercal N

INSTITUCIÓN / INSTITUTION: - Department of Chemistry, Missouri University of Science and Technology, Rolla, MO, USA.

RESUMEN / SUMMARY: - Bleomycin (BLM), a glycopeptide antibiotic from *Streptomyces verticillus*, is an effective antineoplastic drug. However, its clinical use is restricted due to the wide range of associated toxicities, especially pulmonary toxicity. Oxidative stress has been implicated as an important factor in the development of BLM-induced pulmonary toxicity. Previous studies have indicated disruption of thiol-redox status in lungs (lung epithelial cells) upon BLM treatment. Therefore, this study focused on (1) investigating the oxidative effects of BLM on lung epithelial cells (A549) and (2) elucidating whether a well-known thiol antioxidant, N-acetylcysteine amide (NACA), provides any protection against BLM-induced toxicity. Oxidative stress parameters, such as glutathione (GSH), malondialdehyde (MDA), and antioxidant enzyme activities were altered upon BLM treatment. Loss of mitochondrial membrane potential ($\Delta\psi$), as assessed by fluorescence microscopy, indicated that cytotoxicity is possibly mediated through mitochondrial dysfunction. Pretreatment with NACA reversed the oxidative effects of BLM. NACA decreased the reactive oxygen species (ROS) and MDA levels and restored the

intracellular GSH levels. Our data showed that BLM induced A549 cell death by a mechanism involving oxidative stress and mitochondrial dysfunction. NACA had a protective role against BLM-induced toxicity by inhibiting lipid peroxidation, scavenging ROS, and preserving intracellular GSH and DeltaPsim. NACA can potentially be developed into a promising adjunctive therapeutic option for patients undergoing chemotherapy with BLM.

[145]

TÍTULO / TITLE: - Detection and comparison of EGFR mutations in matched tumor tissues, cell blocks, pleural effusions, and sera from patients with NSCLC with malignant pleural effusion, by PNA clamping and direct sequencing.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Aug;81(2):207-12. doi: 10.1016/j.lungcan.2013.04.023. Epub 2013 May 29.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1016/j.lungcan.2013.04.023](#)

AUTORES / AUTHORS: - Yeo CD; Kim JW; Kim KH; Ha JH; Rhee CK; Kim SJ; Kim YK; Park CK; Lee SH; Park MS; Yim HW

INSTITUCIÓN / INSTITUTION: - Department of Internal Medicine, Uijeongbu St. Mary's Hospital, The Catholic University of Korea, Republic of Korea.

RESUMEN / SUMMARY: - Peptide nucleic acid (PNA)-mediated real-time PCR clamping has higher sensitivity than conventional direct sequencing for detecting mutations. Pleural effusion and serum may provide good samples in which to detect epidermal growth factor receptor (EGFR) mutations in non-small cell lung cancer (NSCLC) patients. We studied 37 NSCLC patients with malignant pleural effusion. EGFR mutations were assessed by PNA clamping and direct sequencing using tumor tissues, cell blocks, pleural effusion, and serum. Concordance between PNA clamping and direct sequencing results, and the diagnostic performance of pleural effusion were investigated. The kappa coefficients for the two methods were 0.68 ($p=0.0007$), 0.91 ($p<0.0001$), 0.75 ($p<0.0001$) and -0.01 ($p=0.8639$) for tissues, cell blocks, pleural effusion, and serum, respectively. The diagnostic performance of pleural effusion compared with the combination of tumor tissue and cell blocks showed 89% sensitivity, 100% specificity, positive predictive value of 100%, and negative predictive value of 95% by PNA clamping, and 67% sensitivity, 90% specificity, positive predictive value of 75%, and negative predictive value of 86% by direct sequencing. A patient in whom an EGFR mutation was identified in pleural effusion only by PNA clamping showed a significant response to EGFR tyrosine kinase inhibitor (EGFR-TKI) treatment. In contrast to the limited role of serum samples, pleural effusion had a diagnostic performance for the detection of EGFR mutations in NSCLC that was comparable to that of tumor tissues and cell blocks. The diagnostic performance of PNA clamping was good compared with that of direct sequencing. A more sensitive and accurate detection of

EGFR mutations would benefit patients by allowing a better prediction of the response to EGFR-TKI treatment.

[146]

TÍTULO / TITLE: - Frequency of EGFR and KRAS mutations in patients with non small cell lung cancer by racial background: Do disparities exist?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jun 24. pii: S0169-5002(13)00223-7. doi: 10.1016/j.lungcan.2013.05.011.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.011](#)

AUTORES / AUTHORS: - Bauml J; Mick R; Zhang Y; Watt CD; Vachani A; Aggarwal C; Evans T; Langer C

INSTITUCIÓN / INSTITUTION: - Abramson Cancer Center, Hospital of University of Pennsylvania, Philadelphia, PA, United States; Department of Medicine, Hospital of University of Pennsylvania, Philadelphia, PA, United States.

RESUMEN / SUMMARY: - INTRODUCTION: Mutations in EGFR and KRAS can impact treatment decisions for patients with NSCLC. The incidence of these mutations varies, and it is unclear whether there is a decreased frequency among African Americans (AAs). METHODS: We performed a retrospective chart review of 513 NSCLC patients undergoing EGFR and KRAS mutational analysis at the Hospital of the University of Pennsylvania between May 2008 and November 2011. Clinical and pathologic data were abstracted from the patients' electronic medical record. RESULTS: Of 497 patients with informative EGFR mutation analyses, the frequency of EGFR mutation was 13.9%. The frequency of EGFR mutations was associated with race ($p < 0.001$) and was lower in AA patients compared to Caucasian patients but did not reach statistical significance (4.8% vs. 13.7%, $p = 0.06$). Mean Charlson Comorbidity Index and number of cigarette pack years were significantly lower in patients with EGFR mutations ($p = 0.01$ and $p < 0.001$, respectively). Multivariable logistic regression analysis showed a significant association between race and EGFR mutation ($p = 0.01$), even after adjusting for smoking status ($p < 0.001$) and gender ($p = 0.03$). KRAS mutation (study frequency 28.1%) was not associated with race ($p = 0.08$; $p = 0.51$ for AA vs. C patients), but was more common among smokers ($p < 0.001$) and females ($p = 0.01$). CONCLUSIONS: Based on multivariable analysis, even after adjusting for smoking status and gender, we found that race was statistically significantly associated with EGFR mutation, but not KRAS mutational status. To the best of our knowledge, this is the largest single institution series to date evaluating racial differences in EGFR and KRAS mutational status among patients with NSCLC.

[147]

TÍTULO / TITLE: - Impact of physical size on gefitinib efficacy in patients with non-small cell lung cancer harboring EGFR mutations.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jun 25. pii: S0169-5002(13)00254-7. doi: 10.1016/j.lungcan.2013.05.021.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.021](#)

AUTORES / AUTHORS: - Ichihara E; Hotta K; Takigawa N; Kudo K; Kato Y; Honda Y; Hayakawa H; Minami D; Sato A; Tabata M; Tanimoto M; Kiura K

INSTITUCIÓN / INSTITUTION: - Department of Hematology, Oncology, and Respiratory Medicine, Okayama University Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Japan. Electronic address: ichihae@md.okayama-u.ac.jp.

RESUMEN / SUMMARY: - Gefitinib is an essential drug for the treatment of non-small cell lung cancer (NSCLC) with epidermal growth factor receptor (EGFR) gene mutations. The approved dosage is 250mg/body/day without adjustment for physical size such as body surface area (BSA), and the impact of physical size on the efficacy of gefitinib has not been evaluated. Here, we sought to clarify this issue using a retrospective cohort. We reviewed the medical records of patients with consecutive advanced NSCLC harboring EGFR mutations who underwent gefitinib monotherapy at Okayama University Hospital. In total, 101 patients were included in this study, and the median BSA in this cohort was 1.5m². The median progression-free survival (PFS) of the patients with higher BSA ($\geq 1.5\text{m}^2$) was significantly worse than that of those with lower BSA ($< 1.5\text{m}^2$) (10.4 vs. 18.0 months; $p=0.019$, log-rank test). Multivariate analysis also showed a significant impact of BSA on PFS (hazards ratio, 2.34; 95% confidence interval, 1.78-2.89; $p=0.002$). By contrast, no significant association between BSA and PFS was observed in those undergoing cytotoxic chemotherapy (4.0 vs. 5.1 months; $p=0.989$, log-rank test), suggesting that BSA is a predictive, rather than a prognostic, marker for gefitinib therapy in EGFR-mutated NSCLC. In conclusion, BSA affected PFS in patients with EGFR-mutated NSCLC who underwent gefitinib monotherapy, suggesting the need for appraisal of BSA-based dose adjustment, even for this molecular target-based therapy.

[148]

TÍTULO / TITLE: - 18F-EF5 PET Imaging as an Early Response Biomarker for the Hypoxia-Activated Prodrug SN30000 Combined with Radiation Treatment in a Non-Small Cell Lung Cancer Xenograft Model.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Nucl Med. 2013 Aug;54(8):1339-46. doi: 10.2967/jnumed.112.116293. Epub 2013 Jun 5.

- Enlace al texto completo (gratis o de pago)

[2967/jnumed.112.116293](https://doi.org/10.2967/jnumed.112.116293)

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INSTITUCIÓN / INSTITUTION: - Department of Radiology, Duke University Medical Center, Durham, North Carolina.

RESUMEN / SUMMARY: - Hypoxia is a significant therapeutic problem for solid tumors because hypoxic cells are treatment-resistant and more aggressive. Hypoxia-activated prodrugs such as SN30000 use a mechanism of activation in hypoxic cells similar to that of 2-nitroimidazole hypoxia PET tracers. Therefore, we have evaluated the usefulness of 2-(2-nitro-1H-imidazol-1-yl)-N-(2,2,3,3,3-(18)F-pentafluoropropyl)-acetamide ((18)F-EF5) PET to monitor and predict tumor response to SN30000 plus radiation treatment (RT). **METHODS:** Human non-small cell lung cancer xenografts (H460) in athymic rats were imaged with (18)F-EF5 PET before and after treatment with SN30000 (90 mg/kg), with or without 15-Gy RT. The feasibility of imaging early changes in hypoxia in response to SN30000 was examined 24 h after treatment, followed by ex vivo gamma-counting and immunohistochemical examination to study drug-induced apoptosis. Subsequently, the therapeutic effects of SN30000 with or without RT were evaluated in tumor growth delay studies and compared with early treatment-induced changes observed by (18)F-EF5 PET. Changes in tumor hemoglobin oxygen saturation as a function of time after treatment measured by optical spectroscopy were compared with PET data. **RESULTS:** The uptake of (18)F-EF5 was significantly lower in SN30000-treated tumors than in saline controls 24 h after treatment (mean standardized uptake value, 0.44 +/- 0.08 vs. 0.56 +/- 0.08 for control group; P < 0.05). Apoptosis was significantly higher in SN30000-treated tumors than in controls. Early treatment-induced changes in (18)F-EF5 uptake were indicative of tumor response in growth delay studies at the group level. SN30000 plus RT significantly decreased (18)F-EF5 uptake relative to baseline and resulted in complete tumor remission in 5 of 7 animals. SN30000 alone decreased (18)F-EF5 uptake, generally in tumors with high initial standardized uptake values, and showed a minor tumor growth delay effect. The changes induced by SN30000 with or without RT in (18)F-EF5 uptake correlated with baseline hypoxia levels. RT caused significant increases in tumor oxygen concentration and hemoglobin oxygen saturation. **CONCLUSION:** A hypoxia PET imaging agent can measure changes in tumor hypoxic fraction in response to SN30000. These results suggest the utility of (18)F-EF5 PET for monitoring early response to tumor treatment with SN30000 plus RT in the clinical development of this novel hypoxia-activated prodrug.

[149]

TÍTULO / TITLE: - Circulating pro-surfactant protein B as a risk biomarker for lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Epidemiol Biomarkers Prev. 2013 Jul 29.

●● Enlace al texto completo (gratis o de pago) [1158/1055-9965.EPI-13-0251](#)

AUTORES / AUTHORS: - Taguchi A; Hanash SM; Rundle AG; McKeague IW; Tang DL; Darakjy S; Gaziano JM; Sesso HD; Perera F

INSTITUCIÓN / INSTITUTION: - McCombs Institute for Early Detection and Treatment, Division of Cancer Prevention, MD Anderson Cancer Center.

RESUMEN / SUMMARY: - Background: Our prior studies of lung cancer suggested that a novel biomarker (pro-surfactant protein B or pro-SFTPB) might serve as a predictive marker for this disease. We aimed to determine the potential utility of pro-SFTPB for distinguishing lung cancer cases from matched controls as a risk marker. Methods: Study subjects were drawn from the longitudinal Physicians' Health Study (PHS). Cases (n = 188) included individuals who were cancer-free at study enrollment but developed lung cancer during follow-up. Controls (n = 337) were subjects who did not develop lung cancer. Cases and controls were matched on date of study enrollment, age at enrollment, and smoking status and amount. Baseline plasma samples drawn at enrollment were analyzed for pro-SFTPB using ELISA to detect differences in protein expression levels for cases and controls. Results: Pro-SFTPB-non-detectable status was significantly associated with lung cancer risk (OR = 5.88, 95% CI 1.24, 27.48). Among subjects with detectable levels of the protein, increasing plasma concentration of pro-SFTPB was associated with higher lung cancer risk (OR = 1.41 per unit increase in log pro-SFTPB, 95% CI 1.08, 1.84). Conclusion: These results suggest a non-linear, J-shaped association between plasma pro-SFTPB levels and lung cancer risk, with both non-detectable and higher levels of the marker being associated with lung cancer. Impact: These results show promise of a risk marker that could contribute to predicting risk for lung cancer development and to narrowing the high risk population for low-dose computed tomography (LDCT) screening.

[150]

TÍTULO / TITLE: - A phase I study of AT-101 with cisplatin and etoposide in patients with advanced solid tumors with an expanded cohort in extensive-stage small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Invest New Drugs. 2013 Jul 17.

●● Enlace al texto completo (gratis o de pago) [1007/s10637-013-9999-7](#)

AUTORES / AUTHORS: - Schelman WR; Mohammed TA; Traynor AM; Kolesar JM; Marnocha RM; Eickhoff J; Keppen M; Alberti DB; Wilding G; Takebe N; Liu G

INSTITUCIÓN / INSTITUTION: - University of Wisconsin Carbone Cancer Center, 600 Highland Avenue, K4/530 CSC, Madison, WI, 53792, USA, wrs@medicine.wisc.edu.

RESUMEN / SUMMARY: - Background. A phase I, dose-escalation study of AT-101 with cisplatin and etoposide was conducted to determine the maximum tolerated dose (MTD)/recommended phase 2 dose (RP2D), safety and pharmacokinetics in patients with advanced solid tumors, with an expanded cohort in patients with extensive-stage small cell lung cancer (ES-SCLC) to assess preliminary activity. Methods. In the dose escalation portion, increasing doses of AT-101 were administered orally BID on days 1-3 along with cisplatin on day 1 and etoposide on days 1-3 of a 21 day cycle. At the RP2D, an additional 7 patients with untreated ES-SCLC were enrolled. Results. Twenty patients were enrolled in the dose-escalation cohort, and 7 patients with ES-SCLC were enrolled in the expanded cohort. The MTD/RP2D was established at AT-101 40 mg BID days 1-3 with cisplatin 60 mg/m² and etoposide 120 mg/m² on day 1 of a 21 day cycle with pegfilgrastim support. Two DLTs of neutropenic fever were seen at dose level 1. After the addition of pegfilgrastim, no additional DLTs were observed. Grade 3/4 treatment-related toxicities included: diarrhea, increased AST, neutropenia, hypophosphatemia, hyponatremia, myocardial infarction and pulmonary embolism. No apparent PK interactions were observed between the agents. Preliminary activity was observed with PRs in patients with ES-SCLC, high-grade neuroendocrine tumor, esophageal cancer and NSCLC. Conclusions. AT-101 with cisplatin and etoposide is well tolerated with growth factor support. Anti-tumor activity was observed in a variety of cancers including ES-SCLC, supporting further investigation with BH-3 mimetics in combination with standard chemotherapy for ES-SCLC.

[151]

TÍTULO / TITLE: - Left anomalous brachiocephalic vein in a patient with right lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Thorac Surg. 2013 Jul;96(1):307-9. doi: 10.1016/j.athoracsur.2012.11.030.

●● Enlace al texto completo (gratis o de pago)

1016/j.athoracsur.2012.11.030

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INSTITUCIÓN / INSTITUTION: - Department of Surgery, National Hospital Organization Mito Medical Center, Ibaraki, Japan. Electronic address: ryo-naka@mail.goo.ne.jp.

RESUMEN / SUMMARY: - The left anomalous brachiocephalic vein is a rare anomaly without congenital heart disease. It is important to recognize this

anomalous vein especially in patients with lung cancer because misinterpretation as a superior mediastinal lymph node enlargement may cause serious complications. We report a case of a 62-year-old lung cancer patient with left anomalous brachiocephalic vein, who underwent surgical treatment safely under video-assisted thoracoscopic surgery after confirmation of this anomaly on contrast-enhanced computed tomographic scan.

[152]

TÍTULO / TITLE: - KEAP1-dependent synthetic lethality induced by AKT and TXNRD1 inhibitors in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Res. 2013 Jul 3.

●● Enlace al texto completo (gratis o de pago) [1158/0008-5472.CAN-13-0712](#)

AUTORES / AUTHORS: - Dai B; Yoo SY; Bartholomeusz G; Graham RA; Majidi M; Yan S; Meng J; Ji L; Coombes K; Minna JD; Fang B; Roth JA

INSTITUCIÓN / INSTITUTION: - Thoracic and cardiovascular Surgery, The University of Texas MD Anderson Cancer Center.

RESUMEN / SUMMARY: - Intrinsic resistance to agents targeting phosphatidylinositol-3-kinase (PI3K)/AKT pathway is one of the major challenges in cancer treatment with such agents. The objective of this study is to identify the genes or pathways that can be targeted to overcome the resistance of non-small cell lung cancer to the AKT inhibitor, MK2206, which is currently being evaluated in phase I and II clinical trials. Using a genome-wide small interfering RNA (siRNA) library screening and biological characterization we identified that inhibition of Thioredoxin Reductase-1 (TXNRD1), one of the key anti-oxidant enzymes, with siRNAs or its inhibitor, Auranofin, sensitized non-small cell lung cancer cells to MK2206 treatment in vitro and in vivo. We found that simultaneous inhibition of TXNRD1 and AKT pathways induced robust reactive oxygen species (ROS) production, which was involved in c-Jun N-terminal Kinase (JNK, MAPK8) activation and cell apoptosis. Furthermore we found that the synthetic lethality interaction between the TXNRD1 and AKT pathways occurred through the KEAP1/NRF2 cellular antioxidant pathway. Lastly, we found that synthetic lethality induced by TXNRD1 and AKT inhibitors relied on wild type KEAP1 function. Our study indicates that targeting the interaction between AKT and TXNRD1 antioxidant pathways with MK2206 and Auranofin, a FDA approved drug, is a rational strategy to treat lung cancer and that KEAP1 mutation status may offer a predictive biomarker for such combination approaches.

[153]

TÍTULO / TITLE: - Histone Demethylase RBP2 Promotes Lung Tumorigenesis and Cancer Metastasis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Res. 2013 Aug 1;73(15):4711-4721. Epub 2013 May 30.

●● Enlace al texto completo (gratis o de pago) [1158/0008-5472.CAN-12-3165](#)

AUTORES / AUTHORS: - Teng YC; Lee CF; Li YS; Chen YR; Hsiao PW; Chan MY; Lin FM; Huang HD; Chen YT; Jeng YM; Hsu CH; Yan Q; Tsai MD; Juan LJ

INSTITUCIÓN / INSTITUTION: - Authors' Affiliations: Genomics Research Center, Agricultural Biotechnology Research Center, and Institute of Biological Chemistry, Academia Sinica; Institute of Biochemistry and Molecular Biology, National Yang-Ming University; Graduate Institute of Pathology, Institute of Biochemical Science, National Taiwan University, Taipei; Department of Biological Science and Technology, Institute of Bioinformatics and Systems Biology, National Chiao Tung University, Hsinchu, Taiwan; and Department of Pathology, Yale University School of Medicine, New Haven, Connecticut.

RESUMEN / SUMMARY: - The retinoblastoma binding protein RBP2 (KDM5A) is a histone demethylase that promotes gastric cancer cell growth and is enriched in drug-resistant lung cancer cells. In tumor-prone mice lacking the tumor suppressor gene RB or MEN1, genetic ablation of RBP2 can suppress tumor initiation, but the pathogenic breadth and mechanistic aspects of this effect relative to human tumors have not been defined. Here, we approached this question in the context of lung cancer. RBP2 was overexpressed in human lung cancer tissues where its depletion impaired cell proliferation, motility, migration, invasion, and metastasis. RBP2 oncogenicity relied on its demethylase and DNA-binding activities. RBP2 upregulated expression of cyclins D1 and E1 while suppressing the expression of cyclin-dependent kinase inhibitor p27 (CDKN1B), each contributing to RBP2-mediated cell proliferation. Expression microarray analyses revealed that RBP2 promoted expression of integrin-beta1 (ITGB1), which is implicated in lung cancer metastasis. Mechanistic investigations established that RBP2 bound directly to the p27, cyclin D1, and ITGB1 promoters and that exogenous expression of cyclin D1, cyclin E1, or ITGB1 was sufficient to rescue proliferation or migration/invasion, respectively. Taken together, our results establish an oncogenic role for RBP2 in lung tumorigenesis and progression and uncover novel RBP2 targets mediating this role. Cancer Res; 73(15); 4711-21. ©2013 AACR.

[154]

TÍTULO / TITLE: - Erratum to: High Expression of Sonic Hedgehog Signaling Proteins Is Related to the Favorable Outcome, EGFR Mutation, and Lepidic Predominant Subtype in Primary Lung Adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Surg Oncol. 2013 Jun 13.

- Enlace al texto completo (gratis o de pago) [1245/s10434-013-3060-0](http://dx.doi.org/10.1245/s10434-013-3060-0)

AUTORES / AUTHORS: - Kim JE; Kim H; Choe JY; Sun P; Jheon S; Chung JH

INSTITUCIÓN / INSTITUTION: - Department of Pathology, Seoul National University College of Medicine, Seoul National University Boramae Hospital, Seoul, Republic of Korea.

[155]

TÍTULO / TITLE: - A sesquiterpene lactone antrocin from *Antrodia camphorata* negatively modulates JAK2/STAT3 signaling via microRNA let-7c and induces apoptosis in lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Carcinogenesis. 2013 Jul 23.

- Enlace al texto completo (gratis o de pago) [1093/carcin/bgt255](http://dx.doi.org/10.1093/carcin/bgt255)

AUTORES / AUTHORS: - Yeh CT; Huang WC; Rao YK; Ye M; Lee WH; Wang LS; Tzeng DT; Wu CH; Shieh YS; Huang CY; Chen YJ; Hsiao M; Wu AT; Yang Z; Tzeng YM

INSTITUCIÓN / INSTITUTION: - Graduate Institute of Clinical Medicine, Taipei Medical University, Taipei.

RESUMEN / SUMMARY: - Lung cancer is the leading cause of cancer deaths worldwide and current therapies fail to treat this disease in majority of cases. *Antrodia camphorata* (AC), is a medicinal mushroom being widely used as food dietary supplement for cancer prevention. The sesquiterpene lactone antrocin is the most potent among more than one hundred secondary metabolites isolated from AC. However, the molecular mechanisms of antrocin-mediated anti-cancer effects remain unclear. In this study, we found that antrocin inhibited cell proliferation in two non-small cell lung cancer cells, namely H441 (wild-type EGFR, IC₅₀= 0.75μM) and H1975 (gefitinib-resistant mutant T790M, IC₅₀=0.83μM). Antrocin dose-dependently suppressed colony formation and induced apoptosis as evidenced by activated caspase-3 and increased Bax/Bcl2 ratio. Gene profiling studies indicated that antrocin downregulated JAK/STAT signaling pathway. We further demonstrated that antrocin suppressed both constitutively activated and IL-6-induced STAT3 phosphorylation and its subsequent nuclear translocation. Such inhibition is found to be achieved through the suppression of JAK2 and interaction between STAT3 and ERK. Additionally, antrocin increased microRNA let-7c expression and suppressed STAT signaling. The combination of antrocin and JAK2/STAT3 gene silencing significantly increased apoptosis in H441 cells. Such dual interruption of JAK2 and STAT3 pathways also induced downregulation of antiapoptotic protein mcl-1 and increased caspase-3 expression. In vivo, intraperitoneal administration of antrocin significantly suppressed the growth of lung cancer tumor xenografts. Our results indicate that antrocin may be a

potential therapeutic agent for human lung cancer cells through constitutive inhibition of JAK2/STAT3 pathway.

[156]

TÍTULO / TITLE: - Carboxy-terminal telopeptide (CTX) and amino-terminal propeptide (PINP) of type I collagen as markers of bone metastases in patients with non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Jun;33(6):2593-6.

AUTORES / AUTHORS: - Lumachi F; Santeufemia DA; Del Conte A; Mazza F; Tozzoli R; Chiara GB; Basso SM

INSTITUCIÓN / INSTITUTION: - Department of Surgery, Oncology and Gastroenterology, School of Medicine, University of Padua, Padova, Italy.

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RESUMEN / SUMMARY: - The early diagnosis of non-small cell lung carcinoma (NSCLC) is difficult, and 30-40% of patients with NSCLC develop bone metastases (BMs) during the course of their disease. Because the delayed demonstration of skeletal involvement may seriously affect survival, there is a need for early diagnosis of BMs. Unfortunately, the sensitivity of common serum tumor markers is low and they are used mainly for monitoring the efficacy of therapy and detection of recurrence. The aim of this study was to evaluate the utility of a panel of serum biomarkers in patients with NSCLC and BMs. Sixteen patients (11 males, 5 females; median age=64 years, range 54-68 years) with NSCLC and BMs (cases), and 18 age- and stage-matched patients without BMs (controls) underwent measurement of serum carboxy-terminal telopeptide of type I collagen (CTX), tartrate-resistant acid phosphatase isoform type 5b (TRAP5b) and amino-terminal propeptide of type I collagen (PINP), carcinoembryonic antigen (CEA) and fragments of cytokeratin 19 (CYFRA 21-1). CTX (443.7 +/- 945.1 vs. 402.7 +/- 28.4 pg/ml, p=0.003) and PINP (75.9 +/- 11.4 vs. 64.1 +/- 7.5 mug/l, p=0.001) were significantly higher in patients with BMs, while the mean value of the other markers did not differ (p=NS) between cases and controls. The sensitivity, specificity and accuracy were 73.3%, 86.7% and 79.4% for CTX; 55.5%, 62.5% and 58.8% for CEA; 65.0%, 78.6% and 70.6% for CYFRA; 30.4%, 76.2% and 67.6% for TRAP5b; and 72.2%, 81.2% and 76.5% for PINP, respectively. The area under the receiver operating characteristic curve (AUC) for CTX was 0.68. In conclusion, CTX and PINP measurement can be useful in monitoring patients with NSCLC during follow-up, with the aim of detecting BMs early.

[157]

TÍTULO / TITLE: - Clinical significance of the frequency of regulatory T cells in regional lymph node lymphocytes as a prognostic factor for non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 25. pii: S0169-5002(13)00310-3. doi: 10.1016/j.lungcan.2013.07.001.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.07.001](#)

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RESUMEN / SUMMARY: - BACKGROUND: Regulatory T cells (Tregs) are potent immunosuppressive cells that play a crucial role in tumor immune escape. The purpose of the present study was to evaluate the prognostic significance of the frequency of CD4+CD25+Foxp3+ Tregs in the regional lymph node lymphocytes (RLNL) and peripheral blood lymphocytes (PBL) in patients who underwent surgical resection of non-small cell lung cancer (NSCLC). METHODS: The RLNL and PBL in 158 NSCLC patients who underwent complete surgical resection were collected at the time of surgery. The proportions of CD4+CD25+Foxp3+ cells in the RLNL and PBL were determined by flow cytometry. RESULTS: The average proportions of Tregs in the RLNL and PBL were 1.28% and 0.76%, respectively. The proportion of Tregs in the RLNL was significantly higher than that in the PBL ($p < 0.0001$). The 5-year overall survival rates of the patients according to the proportion of Tregs in the RLNL were 84.4% and 63.5% in the lower and higher groups, respectively. A significant difference was observed in the survival rate between the higher and lower groups ($p = 0.0056$). Among the patients with stage I disease, the 5-year survival rate (91.4%) was significantly higher in patients with the lower proportion of Tregs in RLNL than in the higher group (72.1%) ($p = 0.0147$). CONCLUSIONS: The higher proportion of Tregs in the RLNL was a significant unfavorable prognostic factor, even in patients with node-negative NSCLC. The information about the proportion of Tregs in the RLNL might improve the discriminatory power for assessing the risk of the recurrence of NSCLC.

[158]

TÍTULO / TITLE: - Why Denosumab Obtains a Survival Benefit over Zoledronic Acid in Bone Metastatic Lung Cancer Patients?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):e79. doi: 10.1097/JTO.0b013e318293e443.

- Enlace al texto completo (gratuito o de pago)

[1097/JTO.0b013e318293e443](https://doi.org/10.1097/JTO.0b013e318293e443)

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[159]

TÍTULO / TITLE: - Clinical, pathological and biological features associated with BRAF mutations in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Cancer Res. 2013 Jul 5.

- Enlace al texto completo (gratuito o de pago) [1158/1078-0432.CCR-13-0657](https://doi.org/10.1158/1078-0432.CCR-13-0657)

AUTORES / AUTHORS: - Cardarella S; Ogino A; Nishino M; Butaney M; Shen J; Lydon C; Yeap BY; Sholl L; Johnson BE; Janne PA

INSTITUCIÓN / INSTITUTION: - Medical Oncology/ Thoracic Oncology, Dana-Farber Cancer Institute.

RESUMEN / SUMMARY: - PURPOSE: BRAF mutations are found in a subset of non-small cell lung cancers (NSCLCs). We examined the clinical characteristics and treatment outcomes of patients with NSCLC harboring BRAF mutations. EXPERIMENTAL DESIGN: Using DNA sequencing, we successfully screened 883 NSCLC patients for BRAF mutations between 7/1/09 and 7/16/12. Baseline characteristics and treatment outcomes were compared between patients with and without BRAF mutations. Wild type controls consisted of NSCLC patients without a somatic alteration in BRAF, KRAS, EGFR, and ALK. In vitro studies assessed the biological properties of selected non-V600E BRAF mutations identified from NSCLC patients. RESULTS: Of 883 tumors screened, 36 (4%) harbored BRAF mutations (V600E: 18; non-V600E: 18) and 257 were wild type for BRAF, EGFR, KRAS, and ALK negative. Twenty-nine of the 36 BRAF mutant patients were smokers. There were no distinguishing clinical features between BRAF mutant and wild type patients. Advanced NSCLC patients with BRAF mutations and wild type tumors showed similar response rates and progression-free survival (PFS) to platinum-based combination chemotherapy and no difference in overall survival. Within the BRAF cohort, patients with V600E mutated tumors had a shorter PFS to platinum-based chemotherapy compared to those with non-V600E mutations, although this did not reach statistical significance (4.1 versus 8.9 months; P=0.297). We identified five BRAF mutations not previously reported in NSCLC; two of the five were associated with increased BRAF kinase activity. CONCLUSIONS: BRAF mutations occur in 4% of NSCLCs and half are non-V600E. Prospective trials are ongoing to validate BRAF as a therapeutic target in NSCLC.

[160]

TÍTULO / TITLE: - Lung Adenocarcinoma Biomarker Incidence in Hispanic Versus Non-Hispanic White Patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Arch Pathol Lab Med. 2013 Jun 26.

- Enlace al texto completo (gratis o de pago) [5858/arpa.2013-0225-OA](#)

[OA](#)

AUTORES / AUTHORS: - McQuitty E; Zhang W; Hendrickson H; Tio FO; Jagirdar J; Olsen R; Cagle P

INSTITUCIÓN / INSTITUTION: - From the Department of Pathology, University of Texas Health Sciences Center, San Antonio (Drs Zhang and Jagirdar); the Department of Anatomic and Clinical Pathology, South Texas Veterans Health Care System, San Antonio (Dr Tio); and the Department of Pathology and Genomic Medicine, Methodist Hospital, Houston, Texas (Drs McQuitty, Olsen, and Cagle and Ms Hendrickson). Dr McQuitty is now with the Department of Pathology and Immunology, Baylor College of Medicine, Houston.

RESUMEN / SUMMARY: - Context.-Lung cancer is the leading cause of cancer deaths in the United States and worldwide. Biomarker testing is critical to personalized therapy in lung adenocarcinoma and has been extensively investigated in non-Hispanic whites, Asians, and African Americans. However, little information addresses the underlying genetic changes in lung adenocarcinoma among Hispanic patients in the United States. Objective.-To identify targetable biomarkers other than EGFR and EML4-ALK in Hispanic patients with lung adenocarcinoma. Design.-We tested DNA extracted from 85 lung adenocarcinoma specimens collected from 40 Hispanic and 43 non-Hispanic white patients for previously reported mutations in KRAS, MET, BRAF, mTOR, STAT3, JAK2, PIK3CA, AKT1 through AKT3, and PTEN with a custom Sequenom massARRAY assay (Sequenom, San Diego, California). Results.-Mutations in KRAS were identified in 11 cases (13%; 6 Hispanic [7%], 5 non-Hispanic white [6%]) and had no correlation with sex, age, or smoking history. Mutations in PIK3CA were identified in 2 of the 40 Hispanic patients (5%), including one patient (2.5%) with a concurrent KRAS mutation. The tumors were wild type for all other genes tested. Conclusions.-Targetable biomarkers other than EGFR and EML4-ALK were identified in 7 of the 40 Hispanic patients (18%) and 5 of the 43 non-Hispanic white patients (12%), suggesting a similar mutational frequency. Our highly multiplexed genotyping assay detected actionable mutations in 14% (12 of 83) more patients than would have been identified by EGFR and EML4-ALK testing alone.

[161]

TÍTULO / TITLE: - Targeting 3-phosphoinositide-dependent protein kinase 1 by N-acetyl-cysteine through activation of peroxisome proliferators activated receptor alpha in human lung cancer cells, the role of p53 and p65.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Exp Clin Cancer Res. 2013 Jul 18;32:43. doi: 10.1186/1756-9966-32-43.

●● Enlace al texto completo (gratis o de pago) [1186/1756-9966-32-43](#)

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RESUMEN / SUMMARY: - BACKGROUND: N-Acetyl-Cysteine (NAC), a natural sulfur-containing amino acid derivative, and peroxisome proliferators activated receptor alpha (PPARalpha) ligand have been shown to have anticancer properties. However, the mechanisms by which these agents inhibit human non-small cell lung carcinoma (NSCLC) cell growth have not been well elucidated. METHODS: Small interfering RNAs (siRNAs) were used to knockdown 3-phosphoinositide-dependent protein kinase 1 (PDK1), PPARalpha, p65 and p53 genes; Western Blot was performed to detect the protein expression of PDK1, PPARalpha, p65 and p53; Cell viability and MTT assays were carried out to determine the cell proliferation; Transient transfection and Dual-Luciferase Reporter assays were used to transfect siRNAs or exogenous expression vectors, and to measure the gene promoter activity. RESULTS: We showed that NAC inhibited NSCLC cell proliferation through reduction of PDK1 expression. NAC also induced the protein expression of PPARalpha. While PPARalpha ligand enhanced, PPARalpha antagonist and siRNA abrogated the effect of NAC on PDK1 promoter activity, protein expression and cell growth. Overexpression of PDK1 diminished the inhibitory effect of NAC on cell proliferation. NAC induced p53 and reduced p65 protein expression through activation of PPARalpha. Silencing of p53 and overexpression of p65 blocked the effect of NAC on PDK1 promoter activity and protein expression. CONCLUSION: Our results show that NAC inhibits PDK1 expression through PPARalpha-mediated induction of p53 and inhibition of p65 protein expression. PPARalpha ligand enhances the effect of NAC. This ultimately inhibits NSCLC cell growth. This study unveils a novel mechanism by which NAC in combination with PPARalpha ligand inhibits growth of human lung carcinoma cells.

[162]

TÍTULO / TITLE: - Template for Reporting Results of Biomarker Testing of Specimens From Patients With Non-Small Cell Carcinoma of the Lung.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Arch Pathol Lab Med. 2013 Jun 28.

- Enlace al texto completo (gratis o de pago) [5858/arpa.2013-0232-](#)

[CP](#)

AUTORES / AUTHORS: - Cagle PT; Sholl LM; Lindeman NI; Alsabeh R; Divaris DX; Foulis P; Lee G; Neal JW; Nowak JA; Yu PP

INSTITUCIÓN / INSTITUTION: - From the Department of Pathology and Genomic Medicine, the Methodist Hospital, Houston, Texas (Dr Cagle);

[163]

TÍTULO / TITLE: - A Phase II Study of the Histone Deacetylase Inhibitor Panobinostat (LBH589) in Pretreated Patients with Small-Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):1091-1094.

- Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e318293d88c](#)

AUTORES / AUTHORS: - de Marinis F; Atmaca A; Tiseo M; Giuffreda L; Rossi A; Gebbia V; Antonio CD; Zotto LD; Al-Batran SE; Marsoni S; Wolf M

INSTITUCIÓN / INSTITUTION: - *Department of Pulmonary-Oncology, San Camillo Hospital, Rome, Italy; daggerDepartment of Oncology and Hematology, Institute of Clinical Research at Krankenhaus Nordwest, University Cancer Center, Frankfurt, Germany; double daggerDepartment of Medical Oncology, University Hospital, Parma, Italy; section signDepartment of Medical Oncology, Molinette Hospital, Turin, Italy; ||Department of Medical Oncology, S. Giuseppe Moscati Hospital, Avellino, Italy; paragraph signDepartment of Medical Oncology, Maddalena Clinic, University of Palermo, Italy; #Southern Europe New Drugs Organization, Milan, Italy; and **Klinikum Kassel, Kassel, Germany.

RESUMEN / SUMMARY: - BACKGROUND:: In vitro data suggest that panobinostat (LBH589), a pan-deacetylase inhibitor, may add therapeutic benefit in the treatment of small-cell lung cancer (SCLC) with regression of tumors. METHODS:: This multicenter, nonrandomized phase 2 trial was designed to evaluate antitumor activity of LBH589 in patients with previously treated SCLC. Patients received LBH589 administered intravenously at a dose of 20 mg/mq (days 1-8) every 21 days. RESULTS:: A total of 21 patients with extensive- or limited-stage SCLC were enrolled. Patients received a median of two cycles (range, 1-6). LBH589 was well tolerated, and the most common toxicities were grade 1 to 2 gastrointestinal disorders (nausea 38%, diarrhea 24%, vomiting 19%), grade 1 to 2 thrombocytopenia (14.3%). Of 19 patients evaluable for efficacy, two cases showed shrinkages more than 30% at first assessment, with time to progression of 14 and 21 weeks, respectively, and there were three long disease stabilizations of 12, 10, and 13 weeks. The study

was prematurely closed because of a lack of activity. CONCLUSION:: This is the first report of a pan-deacetylase inhibitor inducing tumor shrinkage and sustained stable disease in SCLC. We believe that although the trial was prematurely discontinued, modest clinical activity of LBH589 combined with a favorable safety profile in pretreated SCLC patients was observed, which warrants further exploration of the potential contribution of LBH589 in other trials.

[164]

TÍTULO / TITLE: - Computed tomography screening for lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Intern Med. 2013 Jul 16;159(2):155. doi: 10.7326/0003-4819-159-2-201307160-00016.

●● Enlace al texto completo (gratis o de pago) [7326/0003-4819-159-2-201307160-00016](#)

AUTORES / AUTHORS: - Trovato GM; Sperandeo M; Catalano D

[165]

TÍTULO / TITLE: - Computed tomography screening for lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Intern Med. 2013 Jul 16;159(2):156-7. doi: 10.7326/0003-4819-159-2-201307160-00018.

●● Enlace al texto completo (gratis o de pago) [7326/0003-4819-159-2-201307160-00018](#)

AUTORES / AUTHORS: - Henschke CI; Yip R; Yankelevitz DF; Smith JP

[166]

TÍTULO / TITLE: - Computed tomography screening for lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Intern Med. 2013 Jul 16;159(2):155-6. doi: 10.7326/0003-4819-159-2-201307160-00017.

●● Enlace al texto completo (gratis o de pago) [7326/0003-4819-159-2-201307160-00017](#)

AUTORES / AUTHORS: - Bach PB; Gould MK; Silvestri GA

[167]

TÍTULO / TITLE: - Phase II study of pemetrexed and carboplatin plus bevacizumab as first-line therapy in malignant pleural mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Br J Cancer. 2013 Aug 6;109(3):552-8. doi: 10.1038/bjc.2013.368. Epub 2013 Jul 16.

●● Enlace al texto completo (gratis o de pago) [1038/bjc.2013.368](https://doi.org/10.1038/bjc.2013.368)

AUTORES / AUTHORS: - Ceresoli GL; Zucali PA; Mencoboni M; Botta M; Grossi F; Cortinovis D; Zilembo N; Ripa C; Tiseo M; Favaretto AG; Soto-Parra H; De Vincenzo F; Bruzzzone A; Lorenzi E; Gianoncelli L; Ercoli B; Giordano L; Santoro A

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Cliniche Humanitas Gavazzeni, Bergamo, Italy.

RESUMEN / SUMMARY: - Background: The aim of this open label phase II study (NCT00407459) was to assess the activity of the vascular endothelial growth factor (VEGF) inhibitor bevacizumab combined with pemetrexed and carboplatin in patients with previously untreated, unresectable malignant pleural mesothelioma (MPM). Methods: Eligible patients received pemetrexed 500 mg m(-2), carboplatin area under the plasma concentration-time curve (AUC) 5 mg ml(-1) per minute and bevacizumab 15 mg kg(-1), administered intravenously every 21 days for six cycles, followed by maintenance bevacizumab. The primary end point of the study was progression-free survival (PFS). A 50% improvement in median PFS in comparison with standard pemetrexed/platinum combinations (from 6 to 9 months) was postulated. Results: Seventy-six patients were evaluable for analysis. A partial response was achieved in 26 cases (34.2%, 95% CI 23.7-46.0%). Forty-four (57.9%, 95% CI 46.0-69.1%) had stable disease. Median PFS and overall survival were 6.9 and 15.3 months, respectively. Haematological and non-haematological toxicities were generally mild; however, some severe adverse events were reported, including grade 3-4 fatigue in 8% and bowel perforation in 4% of patients. Three toxic deaths occurred. Conclusion: The primary end point of the trial was not reached. However, due to the limitation of a non-randomised phase II design, further data are needed before drawing any definite conclusion on the role of bevacizumab in MPM.

[168]

TÍTULO / TITLE: - Determination of 35 cell surface antigen levels in malignant pleural effusions identifies CD24 as a marker of disseminated tumor cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Cancer. 2013 Jun 17. doi: 10.1002/ijc.28312.

●● Enlace al texto completo (gratis o de pago) [1002/ijc.28312](https://doi.org/10.1002/ijc.28312)

AUTORES / AUTHORS: - Yao X; Labelle M; Lamb CR; Dugan JM; Williamson CA; Spencer DR; Christ KR; Keating RO; Lee WD; Paradis GA; Begum S; Hynes RO; Wittrup KD

INSTITUCIÓN / INSTITUTION: - David H. Koch Institute for Integrative Cancer Research, Massachusetts Institute of Technology, Cambridge, MA; Department

of Biological Engineering, Massachusetts Institute of Technology, Cambridge, MA.

RESUMEN / SUMMARY: - Many targets have been identified in solid tumors for antibody therapy but it is less clear what surface antigens may be most commonly expressed on disseminated tumor cells. Using malignant pleural effusions as a source of disseminated tumor cells, we compared a panel of 35 antigens for their cancer specificity, antigen abundance and functional significance. These antigens have been previously implicated in cancer metastasis and fall into four categories: (i) cancer stem cell, (ii) epithelial-mesenchymal transition, (iii) metastatic signature of in vivo selection and (iv) tyrosine kinase receptors. We determined the antigen density of all 35 antigens on the cell surface by flow cytometry, which ranges from 3×10^3 - 7×10^6 copies per cell. Comparison between the malignant and benign pleural effusions enabled us to determine the antigens specific for cancer. We further chose six antigens and examined the correlation between their expression levels and tumor formation in immunocompromised mice. We concluded that CD24 is one of the few antigens that could simultaneously meet all three criteria of an ideal target. It was specifically and abundantly expressed in malignant pleural effusions; CD24^{high} tumor cells formed tumors in mice at a faster rate than CD24^{low} tumor cells, and shRNA-mediated knockdown of CD24 in HT29 cells confirmed a functional requirement for CD24 in the colonization of the lung. Concomitant consideration of antigen abundance, specificity and functional importance can help identify potentially useful markers for disseminated tumor cells.

[169]

TÍTULO / TITLE: - ANCCA Protein Expression is a Novel Independent Poor Prognostic Marker in Surgically Resected Lung Adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Surg Oncol. 2013 Jun 18.

●● Enlace al texto completo (gratis o de pago) [1245/s10434-013-3027-](#)

[1](#)

AUTORES / AUTHORS: - Zhang Y; Sun Y; Li Y; Fang Z; Wang R; Pan Y; Hu H; Luo X; Ye T; Li H; Wang L; Chen H; Ji H

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Fudan University Shanghai Cancer Center, Shanghai, China.

RESUMEN / SUMMARY: - BACKGROUND: AAA+ nuclear coregulator cancer associated (ANCCA) is found to be overexpressed in various cancer types and could play a role in common and fundamental cellular processes. A recent study suggested that ANCCA was a likely driver whose expression explained the behavior of differentially expressed proliferation-related genes in lung adenocarcinoma. However, protein expression of ANCCA in lung adenocarcinoma and its association with clinicopathologic parameters and

commonly reported driver mutations remains unexplored. METHODS: ANCCA expression was evaluated by immunohistochemistry in 143 surgically resected lung adenocarcinomas and was correlated with clinicopathologic and molecular variables including adenocarcinoma histologic subtypes, tumor, node, metastasis status, relapse-free survival, overall survival, EGFR mutations, KRAS mutations, HER2 mutations and ALK fusions. RESULTS: Positive ANCCA expression was significantly associated with male sex, smokers, poorly differentiated tumors, nonlepidic predominant subtype, more advanced T stage, lymph nodal metastasis and late disease stage. Cox multivariate analysis revealed that ANCCA-positive expression was an independent predictor of worse relapse-free survival [hazard ratio (HR) 1.736, 95 % confidence interval (CI) 1.075-2.804; P = .024) and overall survival (HR 7.758, 95 % CI 2.955-20.370; P < .001). The addition of ANCCA protein expression to the prognostic model using pathologic stage markedly improved the prognostic accuracy; the concordance index increased from .692 to .788, and the Akaike information criterion decreased from 354.20 to 336.11. CONCLUSIONS: We have identified ANCCA protein expression as a novel independent poor prognostic indicator in lung adenocarcinoma. Prospective studies are warranted to validate its potential prognostic value in combination with the current staging system.

[170]

TÍTULO / TITLE: - Dioxin and estrogen signaling in lung adenocarcinoma cells with different AhR/ERalpha phenotypes.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Respir Cell Mol Biol. 2013 Jul 15.

●● Enlace al texto completo (gratis o de pago) [1165/rcmb.2012-0497OC](#)

AUTORES / AUTHORS: - Kuo LC; Cheng LC; Lin CJ; Li LA

INSTITUCIÓN / INSTITUTION: - National Health Research Institutes, Division of Environmental Health and Occupational Medicine, Zhunan, Miaoli, Taiwan, Taiwan ; klj0618@yahoo.com.tw.

RESUMEN / SUMMARY: - Evidence suggests that estrogen affects the pulmonary response to carcinogenic pollutants such as dioxins. In this study, we examined dioxin and estrogen signaling crosstalk in lung adenocarcinoma cell lines that were engineered to exhibit different AhR/ERalpha phenotypes. Data showed that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) weakly antagonized estrogen-activated ERalpha activity in cells expressing abundant ERalpha but little AhR. Increase of AhR expression or presence of a dioxin responsive element (DRE) in proximity silenced the antiestrogenic effect of TCDD. AhR was bound to DRE and transcriptionally active in both TCDD-untreated and treated lung adenocarcinoma cells. 17beta-estradiol (E2) reduced basal and TCDD-induced AhR activity only in ERalpha-positive cells. AhR and ERalpha exhibited a protein-protein interaction in the presence of E2. Cotreatment with TCDD

moderated this protein interaction. Colocalization of ERalpha and AhR at the estrogen responsive site under E2 and TCDD/E2 treatments implied that E2ERalpha might hijack AhR away from the dioxin responsive site. Increasing the relative expression of AhR to ERalpha counteracted inhibition of AhR activity by E2ERalpha. When AhR and ERalpha both were highly expressed, TCDD and E2 upregulated expression of dual responsive genes CYP1A1 and CYP1B1 in a cumulative manner, increasing the danger of metabolic activation of carcinogens. Whereas TCDDAhR and E2ERalpha appeared to regulate CYP1B1 separately through their binding sites, E2ERalpha increased the TCDD responsiveness and mRNA expression of CYP1A1 in a noncanonical way. In conclusion, AhR/ERalpha expression pattern, estrogen level, and promoter context determine the genomic action of dioxin in lung adenocarcinoma cells.

[171]

TÍTULO / TITLE: - The present/null polymorphism in the GSTT1 gene and the risk of lung cancer in Chinese population.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumour Biol. 2013 Jun 23.

●● Enlace al texto completo (gratis o de pago) [1007/s13277-013-0923-](#)

[8](#)

AUTORES / AUTHORS: - Gui Q; Xiong J; Zhu C; Lu X

INSTITUCIÓN / INSTITUTION: - Department of Emergency Medicine, Renji Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai, China.

RESUMEN / SUMMARY: - The present/null polymorphism in the GSTT1 gene has been implicated in susceptibility to lung cancer in Chinese population. A large number of studies have reported inconclusive results. The aim of the current study was to investigate the relationship between the present/null polymorphism in the GSTT1 gene and lung cancer risk in Chinese population by meta-analysis. The Pubmed, Embase, CNKI, and Wanfang databases were searched. The statistical analysis was performed by using Revman4.2 and Stata10.0. In summary, a total of 2,211 lung cancer cases and 3,115 controls in 18 case-control studies were included for data analysis. The results suggested that the null genotype carriers may contribute to increased risk of lung cancer in Chinese population when compared with the present genotype carriers (odds ratio = 1.24, 95 % confidence interval = 1.02-1.49). The current meta-analysis suggested that the present/null polymorphism in the GSTT1 gene might contribute to the risk of lung cancer in Chinese population. Future studies are needed to validate these results.

[172]

TÍTULO / TITLE: - STAT3 upregulates miR-92^a to inhibit RECK expression and to promote invasiveness of lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Br J Cancer. 2013 Aug 6;109(3):731-8. doi: 10.1038/bjc.2013.349. Epub 2013 Jul 2.

●● Enlace al texto completo (gratis o de pago) [1038/bjc.2013.349](#)

AUTORES / AUTHORS: - Lin HY; Chiang CH; Hung WC

INSTITUCIÓN / INSTITUTION: - Institute of Biomedical Sciences, National Sun Yat-Sen University, Kaohsiung 804, Taiwan.

RESUMEN / SUMMARY: - Background: Signal transducer and activator of transcription 3 (STAT3) activation is frequently found in human lung cancer and is associated with increased metastasis and reduced survival. How STAT3 enhances invasiveness is unclear. Methods: The expression of microRNAs and target genes was measured by real-time RT-PCR. Protein level was studied by western blotting. Luciferase reporter assay was used to confirm the direct targeting of microRNAs. Gelatin zymography was used to study matrix metalloproteinase (MMP) activity. Transwell assay was used to investigate cell migration and invasion. Results: Enforced expression of STAT3 decreases the endogenous MMP inhibitor RECK protein but not mRNA level in H460 cells. Conversely, STAT3 inhibitor S3I-201 increases RECK protein in STAT3-activating H1299 cells. We demonstrate that STAT3 upregulates miR-92^a to repress RECK via post-transcriptional inhibition. The RECK 3'-untranslated region (3'UTR) reporter activity assay suggests that RECK is a direct repression target of miR-92^a. Delivery of pre-miR-92^a reduces RECK protein level whereas transfection of anti-miR-92^a restores STAT3-induced downregulation of RECK. Anti-miR-92^a attenuates MMP activity, migration and invasion of H1299 cells and STAT3-overexpressing H460 cells, suggesting miR-92^a is critical for STAT3-induced invasiveness. Conclusion: The STAT3-induced miR-92^a promotes cancer invasion by suppressing RECK and targeting of the STAT3/miR-92^a axis may be helpful for cancer treatment.

[173]

TÍTULO / TITLE: - Platinum rechallenge in patients with advanced NSCLC: A pooled analysis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 25. pii: S0169-5002(13)00305-X. doi: 10.1016/j.lungcan.2013.06.022.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.06.022](#)

AUTORES / AUTHORS: - Petrelli F; Coinu A; Cabiddu M; Ghilardi M; Ardine M; Barni S

INSTITUCIÓN / INSTITUTION: - Azienda Ospedaliera di Treviglio, Oncology Department, Medical Oncology Unit, Piazzale Ospedale 1, 24047 Treviglio, BG, Italy. Electronic address: faupe@libero.it.

RESUMEN / SUMMARY: - INTRODUCTION: The sole agents pemetrexed (PEM), docetaxel and anti-EGFR agents are approved second-line therapies for non-small cell lung cancer (NSCLC) after failure with cisplatin-based doublets. The potential usefulness of platinum-based doublets as rechallenge for second-line chemotherapy has not yet been established. METHODS: Studies that enrolled NSCLC platinum pre-treated patients were identified using electronic databases (MEDLINE and EMBASE). Pemetrexed and taxanes (TAXs)-based platinum combinations were considered. A systematic review was conducted using Comprehensive Meta-Analysis (version 2.2.064) software to calculate the event rate of response and 95% confidence interval. Median weighted progression-free survival (PFS) and overall survival (OS) time for PEM and TAXs-based doublets were compared by two-sided Student's t test. We tested for significant heterogeneity by Cochran's chi-square test and I2 index. RESULTS: Eleven studies published between 1999 and 2012 were included in this analysis with a total of 607 patients enrolled; 468 were treated with PEM-doublets and 139 with TAXs-doublets. The overall response rate was 27.5% with a higher response rate of 37.8% (range, 29.7-46.7%) for TAXs-based treatment vs. 22% (range, 13.4-34.1%) for PEM-based combinations; ($p < 0.0001$). Median PFS and OS were 3.9 and 8.7 months with weighted PFS of 3.9 vs. 5.3 months ($p < 0.0001$) and similar OS for PEM vs. TAXs-based doublets. CONCLUSIONS: With the limitations of small and not randomised trials included, this pooled analysis shows that NSCLC patients who relapsed after a first-line platinum-based chemotherapy obtain a tumour response of 27% from a platinum rechallenge containing PEM or TAXs. Response rate and median PFS appear better with TAXs-than with PEM-doublets.

[174]

TÍTULO / TITLE: - Human papillomavirus infections as a marker to predict overall survival in lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Cancer. 2013 Jun 25. doi: 10.1002/ijc.28349.

●● Enlace al texto completo (gratis o de pago) [1002/ijc.28349](#)

AUTORES / AUTHORS: - Wang JL; Fang CL; Wang M; Yu MC; Bai KJ; Lu PC; Liu HE

INSTITUCIÓN / INSTITUTION: - Division of Hematology Oncology, Department of Pediatrics, Wan Fang Hospital, Taipei Medical University, Taipei, Taiwan; Graduate Institute of Clinical Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan.

RESUMEN / SUMMARY: - Human papillomavirus (HPV) has been implicated in multiple cancers, but its significance in lung cancer has remained controversial. As the prevalence of HPV 16/18 infection was higher in lung adenocarcinoma among Taiwanese females, the aim of our study was to evaluate the clinical impact of HPV infections in lung adenocarcinoma. Two hundred and ten

patients were enrolled to investigate the associations of HPV status in tumors with clinical characteristics as well as its impact on overall survival. The methods to assess HPV status were by immunohistochemistry for HPV L1 capsid protein and E6 protein and by nested polymerase chain reaction for HPV 16 and HPV 18. HPV infections were identified in 35.2% of patients, and associated with localized and smaller sized tumors ($p = 0.022$ and $p = 0.002$, respectively). Patients with HPV infections had a significantly better survival ($p = 0.023$, by log-rank test) and a significantly reduced mortality risk after adjustments of age, tumor extent, epidermal growth factor receptor (EGFR) mutations status and treatments [adjusted hazard ratio = 0.68, 95% confidence interval (CI) = 0.49-0.96, $p = 0.026$, by multivariate Cox proportional hazards models]. Specifically, patients with both HPV infections and EGFR mutations had the best survival outcome [1-year survival rate, 68.5% (95% CI = 52.2-4.8%)]. Our findings indicate that HPV infections represent an independent prognostic factor for overall survival in patients with lung adenocarcinoma.

[175]

TÍTULO / TITLE: - Correlation of EGFR mutation and predominant histologic subtype according to the new lung adenocarcinoma classification in Chinese patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Med Oncol. 2013 Sep;30(3):645. doi: 10.1007/s12032-013-0645-1. Epub 2013 Jun 25.

●● Enlace al texto completo (gratis o de pago) [1007/s12032-013-0645-](#)

[1](#)

AUTORES / AUTHORS: - Song Z; Zhu H; Guo Z; Wu W; Sun W; Zhang Y

INSTITUCIÓN / INSTITUTION: - Department of Chemotherapy, Zhejiang Cancer Hospital, 38 Guangji Road, Gongshu District, Hangzhou, 310022, People's Republic of China, songzhengbo83@163.com.

RESUMEN / SUMMARY: - A new lung adenocarcinoma classification proposed by the International Association for the Study of Lung Cancer, American Thoracic Society, and European Respiratory Society (IASLC/ATS/ERS) has recently been published. However, the relationship between EGFR mutations and subtype of adenocarcinoma remains unclear. A total of 161 surgically resected lung adenocarcinomas in Zhejiang Cancer Hospital were reviewed using the new classification system. Epidermal growth factor receptor (EGFR) mutations were observed in 67 cases (41.6%). EGFR mutations were found to be closely associated with the micropapillary predominant subtype ($P = 0.0068$) and lepidic component ($P = 0.005$). The frequency of EGFR mutation was found to be lower in the solid predominant subtype than other subtype ($P = 0.04$). In conclusion, histologic subtyping was found to be associated with EGFR mutations. The EGFR mutation frequency of micropapillary and lepidic

predominant subtypes was found to be more pronounced than that of other subtypes.

[176]

TÍTULO / TITLE: - In vivo tumor targeting via nanoparticle-mediated therapeutic siRNA coupled to inflammatory response in lung cancer mouse models.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biomaterials. 2013 Oct;34(31):7744-53. doi: 10.1016/j.biomaterials.2013.06.041. Epub 2013 Jul 12.

●● Enlace al texto completo (gratis o de pago)

1016/j.biomaterials.2013.06.041

AUTORES / AUTHORS: - Conde J; Tian F; Hernandez Y; Bao C; Cui D; Janssen KP; Ibarra MR; Baptista PV; Stoeger T; de la Fuente JM

INSTITUCIÓN / INSTITUTION: - Instituto de Nanociencia de Aragón (INA), Universidad de Zaragoza, Zaragoza 50018, España; CIGMH, Departamento de Ciências da Vida, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Campus de Caparica, 2829-516 Caparica, Portugal.

RESUMEN / SUMMARY: - Up to now, functionalized gold nanoparticles have been optimized as an effective intracellular in vitro delivery vehicle for siRNAs to interfere with the expression of specific genes by selective targeting, and provide protection against nucleases. Few examples however of suchlike in vivo applications have been described so far. In this study, we report the use of siRNA/RGD gold nanoparticles capable of targeting tumor cells in a lung cancer syngeneic orthotopic murine model. Therapeutic RGD-nanoparticle treatment resulted in successful targeting evident from significant c-myc oncogene down-regulation followed by tumor growth inhibition and prolonged survival of lung tumor bearing mice, possibly via alpha5beta3 integrin interaction. Our results suggest that RGD gold nanoparticles-mediated delivery of siRNA by intratracheal instillation in mice leads to successful suppression of tumor cell proliferation and respective tumor size reduction. These results reiterate the capability of functionalized gold nanoparticles for targeted delivery of siRNA to cancer cells towards effective silencing of the specific target oncogene. What is more, we demonstrate that the gold-nanoconjugates trigger a complex inflammatory and immune response that might promote the therapeutic effect of the RNAi to reduce tumor size with low doses of siRNA.

[177]

TÍTULO / TITLE: - Molecular genetic testing for lung adenocarcinomas: a practical approach to clinically relevant mutations and translocations.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Pathol. 2013 Jun 25.

●● Enlace al texto completo (gratis o de pago) [1136/jclinpath-2012-201336](https://doi.org/10.1136/jclinpath-2012-201336)

AUTORES / AUTHORS: - Dacic S

RESUMEN / SUMMARY: - There is a consensus that molecular testing of the lung carcinoma should be the standard of care in the clinical management of patients with lung carcinoma. Recent practice guidelines in oncology and pathology recommend that all advanced and metastatic non-small-cell lung carcinoma with adenocarcinoma histology undergo biomarker testing for epidermal growth factor receptor gene (EGFR) mutations and anaplastic lymphoma kinase gene (ALK) rearrangements. Other types of non-small-cell carcinoma may be considered for such testing if they occur in never-smokers. The landscape of targetable biomarkers in non-small-cell carcinoma is changing rapidly, and demand for clinical testing beyond EGFR mutations and ALK gene rearrangements is increasing. Many patients may test positive for other 'drivers'. As a result, they may be treated with approved biomarker-driven therapies or may be eligible to receive investigational agents in clinical trials. This creates challenges for treating physicians and pathologists such as obtaining sufficient tissue for molecular testing and standardisation of molecular testing in clinical laboratories. This review will focus on the most important lung carcinoma biomarkers predictive of response and will discuss proposed routine molecular testing in clinical practice.

[178]

TÍTULO / TITLE: - Fibroblast growth factor receptor 1 (FGFR1) amplification is a potential therapeutic target in small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mod Pathol. 2013 Jul 26. doi: 10.1038/modpathol.2013.141.

●● Enlace al texto completo (gratis o de pago) [1038/modpathol.2013.141](https://doi.org/10.1038/modpathol.2013.141)

AUTORES / AUTHORS: - Schultheis AM; Bos M; Schmitz K; Wilsberg L; Binot E; Wolf J; Buttner R; Schildhaus HU

INSTITUCIÓN / INSTITUTION: - 1] Institute of Pathology, University Hospital Cologne, Cologne, Germany [2] Center for Integrated Oncology Cologne/Bonn, Cologne, Germany.

RESUMEN / SUMMARY: - Small-cell lung cancer (SCLC) comprises about 13-15% of all lung cancers, and more than 29 400 new cases have been diagnosed in the United States in the year 2012. SCLC is a biologically complex tumor typically occurring in heavy smokers. Its medical treatment has almost remained unchanged over the last decades and selected treatment options have not been established so far, mainly due to the lack of targetable genetic alterations. In this study we analyzed a cohort of 307 SCLC samples for fibroblast growth factor receptor 1 (FGFR1) amplification using a dual color

FISH probe. FGFR1 status was correlated with clinical data. FGFR1 amplifications were observed in 5.6% of evaluable pulmonary SCLCs. Most of them (93%) fulfilled the criteria for high-level amplification and only one case showed low-level amplification. Amplification patterns were homogenous in the entire tumor area without occurrence of any 'hot spot' areas. FGFR1 amplification status was not associated with age, sex, stage, smoking status or overall survival. FGFR1 amplification analysis by FISH analysis in SCLC is, under respect of certain technical issues, applicable in the routine clinical setting. However, the FGFR1 amplification patterns in SCLC differs strongly from the previously described FGFR1 amplification pattern in squamous cell carcinoma of the lung, as positive SCLC harbor mostly homogeneous high-level amplifications. We provide evidence that an estimated number of 1640 newly diagnosed FGFR1-positive SCLC cases in the United States annually could benefit from targeted therapy. Therefore, we recommend including SCLC in the screening for ongoing clinical trials with FGFR1 inhibitors. Modern Pathology advance online publication, 26 July 2013; doi:10.1038/modpathol.2013.141.

[179]

TÍTULO / TITLE: - Synergistic effect of combined treatment with gamma-tocotrienol and statin on human malignant mesothelioma cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Lett. 2013 Jul 20. pii: S0304-3835(13)00535-1. doi: 10.1016/j.canlet.2013.07.015.

●● Enlace al texto completo (gratis o de pago)

[1016/j.canlet.2013.07.015](#)

AUTORES / AUTHORS: - Tuerdi G; Ichinomiya S; Sato H; Siddig S; Suwa E; Iwata H; Yano T; Ueno K

INSTITUCIÓN / INSTITUTION: - Department of Geriatric Pharmacology and Therapeutics, Graduate School of Pharmaceutical Sciences, Chiba University, 1-8-1 Inohana, Chuo-ku, Chiba-shi, Chiba 260-8675, Japan.

RESUMEN / SUMMARY: - The present study is the first to demonstrate the synergistic effect of statins (atorvastatin and simvastatin) and gamma-tocotrienol (gamma-T3) on human malignant mesothelioma (MM). Statin+gamma-T3 combinations induced greater cell growth inhibition more than each single treatment via inhibition of mevalonate pathway, a well-known target of both gamma-T3 and statins. gamma-T3 was necessary for endoplasmic reticulum stress markers CHOP and GRP78, whereas an intrinsic apoptotic marker, caspase 3 activation was induced only in the presence of statins. Overall, the combination of gamma-T3 and statins could be useful for MM therapy and functions in a complementary style.

[180]

TÍTULO / TITLE: - Brain activity correlated with food preferences: a functional study comparing advanced non-small cell lung cancer patients with and without anorexia.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Nutrition. 2013 Jul-Aug;29(7-8):1013-9. doi: 10.1016/j.nut.2013.01.020.

●● Enlace al texto completo (gratis o de pago) [1016/j.nut.2013.01.020](#)

AUTORES / AUTHORS: - Sanchez-Lara K; Arrieta O; Pasaye E; Laviano A; Mercadillo RE; Sosa-Sanchez R; Mendez-Sanchez N

INSTITUCIÓN / INSTITUTION: - Oncology Center Medica Sur Clinic, Mexico City, Mexico. ksanchez@medicasur.org.mx

RESUMEN / SUMMARY: - **OBJECTIVE:** The aim of this study was to examine the brain activity manifested while non-small cell lung cancer (NSCLC) patients with and without anorexia were exposed to visual food stimuli. **METHODS:** We included 26 treatment-naive patients who had been recently diagnosed with advanced NSCLC. Patients with brain metastasis were excluded. The patients were classified into anorectic and non-anorectic groups. Data from functional magnetic resonance imaging based on blood oxygen level-dependent (BOLD) signals were analyzed while the patients perceived pleasant and unpleasant food pictures. The brain records were analyzed with SPM 5 using a voxelwise multiple regression analysis. **RESULTS:** The non-anorectic patients demonstrated BOLD activation, comprising frontal brain regions in the premotor and the prefrontal cortices, only while watching unpleasant stimuli. The anorectic patients demonstrated no activation while watching the pleasant and unpleasant food pictures. **CONCLUSIONS:** Anorectic patients with lung cancer present a lack of activation in the brain regions associated with food stimuli processing. These results are consistent with experiences in the clinical environment: Patients describe themselves as not experiencing sensations of hunger or having an appetite.

[181]

TÍTULO / TITLE: - Three-arm randomised controlled phase 2 study comparing pemetrexed and erlotinib to either pemetrexed or erlotinib alone as second-line treatment for never-smokers with non-squamous non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cancer. 2013 Jul 24. pii: S0959-8049(13)00530-3. doi: 10.1016/j.ejca.2013.06.035.

●● Enlace al texto completo (gratis o de pago) [1016/j.ejca.2013.06.035](#)

AUTORES / AUTHORS: - Lee DH; Lee JS; Kim SW; Rodrigues-Pereira J; Han B; Song XQ; Wang J; Kim HK; Sahoo TP; Digumarti R; Wang X; Altug S; Orlando M

INSTITUCIÓN / INSTITUTION: - Asan Medical Center, Seoul, Republic of Korea.

RESUMEN / SUMMARY: - BACKGROUND: This randomised controlled phase 2 study compared pemetrexed and erlotinib in combination with either agent alone in terms of efficacy and safety as second-line treatment in a clinically selected population of never-smokers with non-squamous non-small cell lung cancer (NSCLC). METHODS: Patients who had failed only one prior chemotherapy regimen and had Eastern Cooperative Oncology Group (ECOG) Performance Status (PS) 2 were randomised to either: pemetrexed 500mg/m² on day 1 plus erlotinib 150mg daily on days 2-14; erlotinib 150mg daily; or pemetrexed 500mg/m² on day 1 of a 21-day cycle until discontinuation criteria were met. The primary endpoint, progression-free survival (PFS), was analysed using a multivariate Cox model. Firstly, a global comparison across the three arms was performed. If the global null hypothesis was rejected at a two-sided 0.2 significance level, pairwise comparisons of pemetrexed-erlotinib versus erlotinib or pemetrexed were then conducted using the same model. Statistical significance was claimed only if both global and pairwise null hypotheses were rejected at a two-sided 0.05 significance level. FINDINGS: A total of 240 patients (male, 35%; East Asian, 55%; ECOG PS 0-1, 93%) were included. A statistically significant difference in PFS was found across the three arms (global p=0.003), with pemetrexed-erlotinib significantly better than either single agent: HR=0.57, 95% confidence interval (CI): 0.40-0.81, p=0.002 versus erlotinib; HR=0.58, 95% CI: 0.39-0.85, p=0.005 versus pemetrexed. Median PFS (95% CI) was 7.4 (4.4, 12.9) months in pemetrexed-erlotinib, 3.8 (2.7, 6.3) months in erlotinib and 4.4 (3.0, 6.0) months in pemetrexed. Safety analyses showed a higher incidence of drug-related grade \geq 3 toxicity in pemetrexed-erlotinib (60.0%) than in pemetrexed (28.9%) or erlotinib (12.0%); the majority being neutropenia, anaemia, rash and diarrhoea. INTERPRETATION: Pemetrexed-erlotinib significantly improved PFS compared to either drug alone in this clinically selected population. The combination had more toxicity, but was clinically manageable.

[182]

TÍTULO / TITLE: - Influenza virus utilizes N-linked sialoglycans as receptors in A549 cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biochem Biophys Res Commun. 2013 Jul 5;436(3):394-9. doi: 10.1016/j.bbrc.2013.05.112. Epub 2013 Jun 4.

●● Enlace al texto completo (gratis o de pago) [1016/j.bbrc.2013.05.112](#)

AUTORES / AUTHORS: - Hidari KI; Yamaguchi M; Ueno F; Abe T; Yoshida K; Suzuki T

INSTITUCIÓN / INSTITUTION: - Department of Biochemistry, School of Pharmaceutical Sciences, University of Shizuoka, 52-1 Yada, Suruga-ku, Shizuoka-shi, Shizuoka 422-8526, Japan. Electronic address: hidari@ic.u-aizu.ac.jp.

RESUMEN / SUMMARY: - Influenza viruses (IFVs) recognize sialoglycans expressed on the host cell surface. To understand the mechanisms underlying tissue and host tropisms of IFV, it is essential to elucidate the molecular interaction of the virus with the host sialoglycan receptor. We established and applied a new monoclonal antibody, clone HYB4, which specifically recognizes the Neu5Acalpha2-3 determinant at the non-reducing terminal Gal residue of both glycoproteins and gangliosides to investigate the biochemical properties of IFV receptors in A549 cells. HYB4 significantly blocked virus binding to A549 cells in a dose-dependent manner. Virus overlay assay indicated that several glycoproteins with molecular masses of 80-120kDa of A549 cells were commonly recognized by different subtypes of IFV, such as H1N1 and H3N2. H1N1 virus binding to the glycoproteins was diminished by pretreatment with either sialidase or PNGase F. On TLC-immunostaining experiments with HYB4, GM3 ganglioside was only detected in A549 cells. Interestingly, this antibody bound to GM3 gangliosides on TLC and plastic surfaces, but not on lipid bilayers. In comparison with the recognition of Maackia amurensis lectins, HYB4 exclusively recognized Neu5Acalpha2-3Galbeta1-4GlcNAc residues expressed on glycoproteins. These results strongly suggest that N-linked sialoglycans with the Neu5Acalpha2-3 determinant on several glycoproteins are receptors for influenza virus in A549 cells.

[183]

TÍTULO / TITLE: - Management of elderly patients with advanced non-small cell lung cancer: a single-center experience.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chemotherapy. 2013;59(1):42-50. doi: 10.1159/000350498. Epub 2013 Jul 2.

●● Enlace al texto completo (gratis o de pago) [1159/000350498](#)

AUTORES / AUTHORS: - Fruh M; Besrou H; Gillessen S; Joerger M; Hitz F; Savidan A; Cerny T; Ess S

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology and Hematology, Kantonsspital St. Gallen, St. Gallen, Switzerland.

RESUMEN / SUMMARY: - Background: Optimal management of elderly patients (>=70 years) with non-small cell lung cancer (NSCLC) remains debatable. We compared survival and treatment of advanced NSCLC between elderly and younger patients. Methods: From the cancer registry, we identified 188 patients treated with chemotherapy for stage IV NSCLC. Patient characteristics, survival, toxicity, chemotherapy regimen and response were compared between age groups (patients 50-69 vs. >=70 years). Results: There were 96 young and 92 elderly patients. The majority were male (70%) and had adenocarcinoma (53%). More elderly had an ECOG performance status >1 (59 vs. 42%, p = 0.04). Median survival was longer for young patients (11.5 vs. 10.8 months, hazard ratio, HR 1.43, p = 0.04). Patients >=75 years had a significantly worse

outcome compared to the young and patients aged 70-74 years (11.5 vs. 12.8 vs. 7.7 months, HR 1.71, p = 0.01). Hospitalization rate did not differ. Elderly had more hematological toxicities (56 vs. 32%, p = 0.01) and less frequently received first-line platinum combinations (96 vs. 69%, p < 0.001). Conclusions: Elderly patients had a marginally worse survival compared to young patients. Despite the less frequent use of combination chemotherapy, elderly patients experienced toxicity more often. Survival of those ≥ 75 years was significantly worse, indicating the urgent need of further research particularly in this age group.

[184]

TÍTULO / TITLE: - A woman with progressive dyspnea with multiple lung cavitations.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Respir Crit Care Med. 2013 Jun 1;187(11):e21-2. doi: 10.1164/rccm.201207-1274IM.

●● Enlace al texto completo (gratis o de pago) [1164/rccm.201207-1274IM](#)

AUTORES / AUTHORS: - Kim DK; Jin KN; Park SS; Heo EY; Chang MS; Lee CH; Chung HS

INSTITUCIÓN / INSTITUTION: - Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul National University Boramae Hospital, Seoul, Korea.

[185]

TÍTULO / TITLE: - HIF-1alpha knockdown by miRNA decreases survivin expression and inhibits A549 cell growth in vitro and in vivo.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Mol Med. 2013 Jun 4. doi: 10.3892/ijmm.2013.1405.

●● Enlace al texto completo (gratis o de pago) [3892/ijmm.2013.1405](#)

AUTORES / AUTHORS: - Li W; Chen YQ; Shen YB; Shu HM; Wang XJ; Zhao CL; Chen CJ

INSTITUCIÓN / INSTITUTION: - Department of Respiration, First Affiliated Hospital, Bengbu Medical College, Provincial Key Laboratory of Respiratory disease in Anhui, Bengbu, Anhui 233004, P.R. China.

RESUMEN / SUMMARY: - The present study examined the downregulation of survivin expression by hypoxia-inducible factor-1alpha (HIF-1alpha) miRNA and its effect in the inhibition of A549 cell growth in vitro and in vivo. Survivin expression, apoptosis, proliferation and migration under normoxic and hypoxic conditions were assessed by standard methods. Cotransfection and chromatin immunoprecipitation were used to observe the effects of HIF-1alpha on survivin transcription. HIF-1alpha knockdown in A549 cells were injected into nude mice

to examine survivin expression and suppression of tumorigenicity. Transfection of A549 cells with HIF-1alpha miRNA led to decreased expression of HIF-1alpha and survivin mRNA and protein. Survivin overexpression is mediated by HIF-1alpha by direct binding to a putative binding site in the survivin core promoter. HIF-1alpha-miRNA induced apoptosis and inhibited proliferation of A549 cells under hypoxic, but not normoxic, conditions, whereas transfection by survivin expression vectors partly rescued the apoptotic phenotype and revived cell proliferation under hypoxic conditions. However, cell migration was substantially suppressed by HIF-1alpha silencing under normoxic and hypoxic conditions. After A549 cells were xenografted in nude mice, survivin expression in mice treated with HIF-1alpha miRNA was downregulated, and tumor growth was significantly inhibited. Silenced HIF-1alpha gene expression induced apoptosis and suppressed growth of A549 cells by downregulating survivin expression in vitro and in vivo. Our results also provide a basis to target the HIF-1alpha pathway in lung cancer therapy.

[186]

TÍTULO / TITLE: - Lung cancer diagnosis: radiologic imaging, histology, and genetics.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Radiology. 2013 Jul;268(1):9-11. doi: 10.1148/radiol.13130558.

●● Enlace al texto completo (gratis o de pago) [1148/radiol.13130558](#)

AUTORES / AUTHORS: - Galvin JR; Franks TJ

INSTITUCIÓN / INSTITUTION: - Department of Diagnostic Radiology and Department of Internal Medicine, University of Maryland School of Medicine, UMH N2W78, 655 W Baltimore St, Baltimore, MD 21201 and Department of Chest Imaging, American Institute for Radiologic Pathology, Silver Spring, Md.

[187]

TÍTULO / TITLE: - Pulmonary Embolism, Myocardial Infarction, and Ischemic Stroke in Lung Cancer Patients: Results from a Longitudinal Study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung. 2013 Jun 27.

●● Enlace al texto completo (gratis o de pago) [1007/s00408-013-9485-](#)

[1](#)

AUTORES / AUTHORS: - van Herk-Sukel MP; Shantakumar S; Penning-van Beest FJ; Kamphuisen PW; Majoor CJ; Overbeek LI; Herings RM

INSTITUCIÓN / INSTITUTION: - PHARMO Institute for Drug Outcomes Research, P.O. Box 85222, 3508 AE, Utrecht, The Netherlands, myrthe.van.herk@pharmo.nl.

RESUMEN / SUMMARY: - PURPOSE: In this cohort study, the rates of pulmonary embolism (PE), myocardial infarction (MI), and ischemic stroke (IS) before and after lung cancer (LC) diagnosis were compared to cancer-free controls. METHODS: Patients with LC during 2000-2007 were selected from PALGA, the Dutch Pathology Registry, and linked to the PHARMO medical record linkage system, including drug use and hospitalizations of 3 million inhabitants in the Netherlands. Included LC patients were matched 1:10 by age and gender to cancer-free controls. Hospitalizations for PE, MI, and IS were assessed in the 12 months before and after LC diagnosis. RESULTS: LC patients (N = 3,717) were six times more likely than cancer-free controls to have had a PE in the 12 months before diagnosis. After LC diagnosis, patients experienced an extremely increased risk of PE in the first 6 months (hazard ratio [HR] 16.8; 95 % confidence interval [CI] 7.6-36.8) compared with controls), which decreased to a five times increased risk (HR 5.1; 95 % CI 2.7-9.4) thereafter. However, there were less than two events per 100 person years during both time periods. LC patients receiving chemotherapy were eight times more likely to develop PE, whereas surgery increased the risk on PE three times. For MI and IS, no significant difference was observed compared with cancer-free controls before or after LC diagnosis. CONCLUSIONS: LC patients have a higher risk of developing PE compared with cancer-free controls, although the frequency of PE hospitalizations was low. Surgery and chemotherapy were associated with an increased risk of PE.

[188]

TÍTULO / TITLE: - TNFRSF10B polymorphisms and haplotypes associated with increased risk of death in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Carcinogenesis. 2013 Aug 2.

●● Enlace al texto completo (gratis o de pago) [1093/carcin/bgt244](#)

AUTORES / AUTHORS: - Schabath MB; Giuliano AR; Thompson ZJ; Amankwah EK; Gray JE; Fenstermacher DA; Jonathan KA; Beg AA; Haura EB

INSTITUCIÓN / INSTITUTION: - Department of Cancer Epidemiology.

RESUMEN / SUMMARY: - Presently, there are few validated biomarkers that can predict survival or treatment response for non-small cell lung cancer (NSCLC) and most are based on tumor markers. Biomarkers based on germ line DNA variations represent a valuable complementary strategy, which could have translational implications by subclassifying patients to tailored, patient-specific treatment. We analyzed single nucleotide polymorphisms (SNPs) in 53 inflammation-related genes among 651 NSCLC patients. Multivariable Cox proportional hazard models, adjusted for lung cancer prognostic factors, were used to assess the association of genotypes and haplotypes with overall survival. Four of the top 15 SNPs associated with survival were located in the TNF-receptor superfamily member 10b (TNFRSF10B) gene. The T-allele of the

top ranked SNP (rs11785599) was associated with a 41% increased risk of death (95% confidence interval [CI] = 1.16-1.70) and the other three TNFRSF10B SNPs (rs1047275, rs4460370 and rs883429) exhibited a 35% (95% CI = 1.11-1.65), 29% (95% CI = 1.06-1.57) and 24% (95% CI = 0.99-1.54) increased risk of death, respectively. Haplotype analyses revealed that the most common risk haplotype (TCTT) was associated with a 78% (95% CI = 1.25-2.54) increased risk of death compared with the low-risk haplotype (CGCC). When the data were stratified by treatment, the risk haplotypes exhibited statistically significantly increased risk of death among patients who had surgery only and no statistically significant effects among patients who had surgery and adjuvant chemotherapy. These data suggest that possessing one or more risk alleles in TNFRSF10B is associated with an increased risk of death. Validated germ line biomarkers may have potential important clinical implications by optimizing patient-specific treatment.

[189]

TÍTULO / TITLE: - Gene amplification of the histone methyltransferase SETDB1 contributes to human lung tumorigenesis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncogene. 2013 Jun 17. doi: 10.1038/onc.2013.239.

●● Enlace al texto completo (gratis o de pago) [1038/onc.2013.239](#)

AUTORES / AUTHORS: - Rodriguez-Paredes M; Martinez de Paz A; Simo-Riudalbas L; Sayols S; Moutinho C; Moran S; Villanueva A; Vazquez-Cedeira M; Lazo PA; Carneiro F; Moura CS; Vieira J; Teixeira MR; Esteller M

INSTITUCIÓN / INSTITUTION: - Cancer Epigenetics and Biology Program (PEBC), Bellvitge Biomedical Research Institute (IDIBELL), Barcelona, España.

RESUMEN / SUMMARY: - Disruption of the histone modification patterns is one of the most common features of human tumors. However, few genetic alterations in the histone modifier genes have been described in tumorigenesis. Herein we show that the histone methyltransferase SETDB1 undergoes gene amplification in non-small and small lung cancer cell lines and primary tumors. The existence of additional copies of the SETDB1 gene in these transformed cells is associated with higher levels of the corresponding mRNA and protein. From a functional standpoint, the depletion of SETDB1 expression in amplified cells reduces cancer growth in cell culture and nude mice models, whereas its overexpression increases the tumor invasiveness. The increased gene dosage of SETDB1 is also associated with enhanced sensitivity to the growth inhibitory effect mediated by the SETDB1-interfering drug mithramycin. Overall, the findings identify SETDB1 as a bona fide oncogene undergoing gene amplification-associated activation in lung cancer and suggest its potential for new therapeutic strategies. Oncogene advance online publication, 17 June 2013; doi:10.1038/onc.2013.239.

[190]

TÍTULO / TITLE: - DNA-damaging imidazoacridinone C-1311 induces autophagy followed by irreversible growth arrest and senescence in human lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Pharmacol Exp Ther. 2013 Jul 3.

●● Enlace al texto completo (gratis o de pago) 1124/jpet.113.203851

AUTORES / AUTHORS: - Polewska J; Skwarska A; Augustin E; Konopa J

INSTITUCIÓN / INSTITUTION: - Gdansk University of Technology.

RESUMEN / SUMMARY: - Imidazoacridinone C-1311 is an antitumor inhibitor of topoisomerase II and FLT3 receptor tyrosine kinase. In this study we describe the unique sequence of cellular responses to C-1311 in human non-small cell lung cancer (NSCLC) cell lines, A549 and H460. In A549 cells, C-1311 (IC₅₀ 0.08 µM) induced G1 and G2/M arrests, whereas H460 cells (IC₅₀ 0.051 µM) accumulated predominantly in G1 phase. In both cell lines, cell cycle arrest was initiated by overexpression of p53, but sustained for extended time by elevated level of p21. Despite prolonged drug exposure (up to 192 h) no apoptotic response was detected in either cell line. Instead, cells developed senescent phenotype and did not resume proliferation even after two weeks of post-treatment, indicating that C-1311-triggered senescence was permanent. When cell cycle arrest was evident but when there were no signs of senescence, C-1311 significantly induced autophagic cells. Pharmacological inhibition of autophagy by 3-methyladenine profoundly reduced senescent phenotype and slightly sensitized cancer cells to C-1311 by increasing cell death, suggesting a link between both autophagy and senescence. However, a siRNA-mediated knockdown of the autophagy-associated Beclin 1 and ATG5 genes attenuated, but failed to block development of senescence. Taken together, our studies suggest that in non-small cell lung cancer cells, C-1311-induced senescence program is preceded and corroborated but not exclusively determined by the induction of autophagy.

[191]

TÍTULO / TITLE: - Do videos improve website satisfaction and recall of online cancer-related information in older lung cancer patients?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Patient Educ Couns. 2013 Jun 30. pii: S0738-3991(13)00229-2. doi: 10.1016/j.pec.2013.06.004.

●● Enlace al texto completo (gratis o de pago) 1016/j.pec.2013.06.004

AUTORES / AUTHORS: - Bol N; Smets EM; Rutgers MM; Burgers JA; de Haes HC; Loos EF; van Weert JC

INSTITUCIÓN / INSTITUTION: - Amsterdam School of Communication Research/ASCoR, University of Amsterdam, Amsterdam, The Netherlands. Electronic address: n.bol@uva.nl.

RESUMEN / SUMMARY: - **OBJECTIVE:** This study investigated the effects of personalized audiovisual information in addition to text on website satisfaction and recall of cancer-related online information in older lung cancer patients. **METHODS:** An experiment using a 3 (condition: text only vs. text with nonpersonalized video vs. text with personalized video) by 2 (age patient: younger [<65yrs] vs. older [>=65yrs]) between-subjects factorial design was conducted. Patients were randomly assigned to one of the three information conditions stratified by age group. **RESULTS:** Patients were more satisfied with the comprehensibility, attractiveness, and the emotional support from the website when information was presented as text with personalized video compared to text only. Text with personalized video also outperformed text with nonpersonalized video regarding emotional support from the website. Furthermore, text with video improved patients' recall of cancer-related information as compared to text only. Older patients recalled less information correctly than younger patients, except when we controlled for Internet use. **CONCLUSION:** Text with personalized audiovisual information can enhance website satisfaction and information recall. Internet use plays an important role in explaining recall of information. **PRACTICE IMPLICATIONS:** The results of this study can be used to develop effective health communication materials for cancer patients.

[192]

TÍTULO / TITLE: - N staging of lung cancer patients with PET/MRI using a three-segment model attenuation correction algorithm: Initial experience.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur Radiol. 2013 Jun 14.

●● Enlace al texto completo (gratis o de pago) [1007/s00330-013-2914-](http://1007/s00330-013-2914-y)

[y](#)

AUTORES / AUTHORS: - Kohan AA; Kolthammer JA; Vercher-Conejero JL; Rubbert C; Partovi S; Jones R; Herrmann KA; Faulhaber P

INSTITUCIÓN / INSTITUTION: - Department of Radiology, University Hospitals Case Medical Center, Case Western Reserve University, Cleveland, OH, USA, andreskohan1@gmail.com.

RESUMEN / SUMMARY: - **OBJECTIVES:** Evaluate the performance of PET/MRI at tissue interfaces with different attenuation values for detecting lymph node (LN) metastases and for accurately measuring maximum standardised uptake values (SUVmax) in lung cancer patients. **MATERIALS AND METHOD:** Eleven patients underwent PET/CT and PET/MRI for staging, restaging or follow-up of suspected or known lung cancer. Four experienced readers determined the N stage of the patients for each imaging method in a randomised blinded way.

Concerning metastases, SUVmax of FDG-avid LNs were measured in PET/CT and PET/MRI in all patients. A standard of reference was created with a fifth experienced independent reader in combination with a chart review. Results were analysed to determine interobserver agreement, SUVmax correlation between CT and MRI (three-segment model) attenuation correction and diagnostic performance of the two techniques. RESULTS: Overall interobserver agreement was high (kappa = 0.86) for PET/CT and substantial (kappa = 0.70) for PET/MRI. SUVmax showed strong positive correlation (Spearman's correlation coefficient = 0.93, P < 0.001) between the two techniques. Diagnostic performance of PET/MRI was slightly inferior to that of PET/CT, without statistical significance (P > 0.05). CONCLUSIONS: PET/MRI using three-segment model attenuation correction for LN staging in lung cancer shows a strong parallel to PET/CT in terms of SUVmax, interobserver agreement and diagnostic performance. KEY POINTS : *F18-FDG PET/MRI shows similar performance to F18-FDG PET/CT in lung cancer N staging. *PET/MRI has substantial interobserver agreement in N staging. *A three-segment model attenuation correction is reliable for assessing the mediastinum.

[193]

TÍTULO / TITLE: - Association of epidermal growth factor receptor mutations with human papillomavirus 16/18 E6 oncoprotein expression in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer. 2013 Jun 24. doi: 10.1002/cncr.28220.

●● [Enlace al texto completo \(gratis o de pago\) 1002/cncr.28220](#)

AUTORES / AUTHORS: - Tung MC; Wu HH; Cheng YW; Wang L; Chen CY; Yeh SD; Wu TC; Lee H

INSTITUCIÓN / INSTITUTION: - Department of Surgery, Tung' Taichung MetroHarbor Hospital, Taichung, Taiwan, Republic of China; Graduate Institute of Clinical Medicine, Taipei Medical University, Taipei, Taiwan, Republic of China.

RESUMEN / SUMMARY: - BACKGROUND: Lung cancers in women, in nonsmokers, and in patients with adenocarcinoma from Asia have more prevalent mutations in the epidermal growth factor receptor (EGFR) gene than their counterparts. However, the etiology of EGFR mutations in this population remains unclear. The authors hypothesized that the human papillomavirus (HPV) type 16/18 (HPV16/18) E6 oncoprotein may contribute to EGFR mutations in Taiwanese patients with lung cancer. METHODS: One hundred fifty-one tumors from patients with lung cancer were enrolled to determine HPV16/18 E6 and EGFR mutations using immunohistochemistry and direct sequencing, respectively. Levels of 8-oxo-7,8-dihydro-2'-deoxyguanosine (8-oxo-dG) in lung tumors and cells were evaluated using immunohistochemistry and liquid chromatography-mass spectrometry/mass spectrometry. An supF

mutagenesis assay was used to determine H₂O₂-induced mutation rates of lung cancer cells with or without E6 expression. RESULTS: Patients with E6-positive tumors had a greater frequency of EGFR mutations than those with E6-negative tumors (41% vs 20%; P = .006). Levels of 8-oxo-dG were correlated with EGFR mutations (36% vs 16%; P = .012). Two stable clones of E6-overexpressing H157 and CL-3 cells were established for the supF mutagenesis assay. The data indicated that the cells with high E6 overexpression had higher H₂O₂-induced SupF gene mutation rates compared with the cells that expressed lower levels of E6 and compared with vector control cells. CONCLUSIONS: HPV16/18 E6 may contribute in part to EGFR mutations in lung cancer, at least in the Taiwanese population. Cancer 2013. © 2013 American Cancer Society.

[194]

TÍTULO / TITLE: - Is Consolidation Chemotherapy after Concurrent Chemo-Radiotherapy Beneficial for Patients with Locally Advanced Non-Small-Cell Lung Cancer?: A Pooled Analysis of the Literature.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Jul 23.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e3182988348](#)

AUTORES / AUTHORS: - Tsujino K; Kurata T; Yamamoto S; Kawaguchi T; Kubo A; Isa S; Hasegawa Y; Ou SH; Takada M; Ando M

INSTITUCIÓN / INSTITUTION: - *Department of Respiratory Medicine, Kinki Central Hospital, Itami, Hyogo, Japan; daggerDepartment of Respiratory Medicine, Allergy and Rheumatic Diseases, Osaka University Graduate School of Medicine, Suita, Osaka, Japan; double daggerDepartment of Medical Oncology, Kinki University School of Medicine, Osakasayama, Osaka, Japan; section signDepartment of Internal Medicine, National Hospital Organization Kinki-Chuo Chest Medical Center, Sakai, Osaka, Japan; ||Department of Internal Medicine, Division of Respiratory Medicine and Allergology, Aichi Medical University School of Medicine, Aichi, Japan; paragraph signDepartment of Medical Oncology, Kishiwada City Hospital, Kishiwada, Osaka, Japan; #Chao Family Comprehensive Cancer Center, University of California Irvine Medical Center, Orange, California; **Department of Internal Medicine, Koyo Hospital, Wakayama, Japan; and daggerdaggerCenter for Advanced Medicine and Clinical Research, Nagoya University Hospital, Nagoya, Aichi, Japan.

RESUMEN / SUMMARY: - INTRODUCTION:: The purpose of this study was to evaluate whether consolidation chemotherapy (CCT) after concurrent chemoradiotherapy is beneficial for patients with locally advanced non-small-cell lung cancer (LA-NSCLC). METHODS:: We systematically searched PubMed for phase II/III trials published before December 31, 2011, examining survival of LA-NSCLC treated with concurrent chemo-radiotherapy. Median overall survival

and other study characteristics were collected from each study and pooled. We extracted log-transformed hazards and standard errors under the assumption that survival follows an exponential distribution, and computed a pooled median overall survival and a 95% confidence interval (CI) using random-effects model. Collected trial arms were categorized as having CCT or not having it, CCT+ and CCT-, respectively. RESULTS:: Forty-one studies were identified including seven phase III studies and 34 phase II studies with 45 arms (CCT+: 25; CCT-: 20). Clinical data were comparable for clinical stage, performance status, cancer histology, sex, and median age between the two groups. There was no statistical difference in pooled mOS between CCT+ (19.0 month; 95% CI, 17.3-21.0) and CCT- (17.9 month; 95% CI, 16.1-19.9). Predicted hazard ratio of CCT+ to CCT- was 0.94 (95% CI, 0.81-1.09; p = 0.40). There were no differences between the two groups with regard to grade 3-5 toxicities in pneumonitis, esophagitis, and neutropenia. These models estimated that addition of CCT could not lead to significant survival prolongation or risk reduction in death for LA-NSCLC patients. CONCLUSION:: The pooled analysis based on a publication basis failed to provide evidence that CCT yields significant survival benefit for LA-NSCLC.

[195]

TÍTULO / TITLE: - A Clinical Model for Identifying Radiosensitive Tumor Genotypes in Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Cancer Res. 2013 Jul 29.

- Enlace al texto completo (gratis o de pago) [1158/1078-0432.CCR-13-0836](https://doi.org/10.1158/1078-0432.CCR-13-0836)

AUTORES / AUTHORS: - Johung KL; Yao X; Li F; Yu JB; Gettinger SN; Goldberg S; Decker RH; Hess JA; Chiang VL; Contessa JN

INSTITUCIÓN / INSTITUTION: - Department of Therapeutic Radiology, Yale School of Medicine.

RESUMEN / SUMMARY: - PURPOSE: NSCLC includes a spectrum of radiosensitive and radioresistant tumors. However little is known about the molecular determinants of cellular radiation responses. We examined clinical outcomes after Gamma Knife (GK) radiotherapy for NSCLC intracranial metastases to evaluate the utility of this model for determining radiosensitive tumor genotypes. EXPERIMENTAL DESIGN: Between 2005 and 2012, 239 NSCLC patients were enrolled in a prospective GK data repository. Molecular pathology regarding EGFR, ALK, and KRAS mutation status was available for 81 patients. Local and distant brain control was determined for 79 patients with 469 brain metastases. Modified Cox proportional hazards models were established to evaluate local control for treated lesions after serial GK treatments. RESULTS: In total 11% of patients developed in-field recurrence. No patients with metastases from tumors with EGFR mutations (0/164 lesions)

or EML4-ALK translocations (0/61 lesions) recurred in-field. In contrast, 19% of patients without these mutations and 18% of patients with KRAS mutations recurred in-field (10/139 and 3/105 lesions, respectively). Rates of distant brain recurrence did not significantly differ across tumor genotypes. The predicted median in-field local control was significantly longer for EGFR mutant and ALK translocated tumors compared to other NSCLC patients ($p < 0.001$), whereas distant brain recurrence time was equivalent ($p = 0.97$). On multivariate analysis, EGFR mutation, ALK translocation, and metastasis size were independent predictors for superior local control after GK. CONCLUSIONS: This study suggests that EGFR kinase domain mutations and EML4-ALK translocations are radiosensitive NSCLC genotypes, and proposes a novel model to identify radiosensitive subtypes of NSCLC. -

[196]

TÍTULO / TITLE: - Diffuse malignant peritoneal mesothelioma: Long-term survival with complete cytoreductive surgery followed by hyperthermic intraperitoneal chemotherapy (HIPEC).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cancer. 2013 Jul 4. pii: S0959-8049(13)00435-8. doi: 10.1016/j.ejca.2013.05.027.

●● Enlace al texto completo (gratis o de pago) [1016/j.ejca.2013.05.027](#)

AUTORES / AUTHORS: - Baratti D; Kusamura S; Cabras AD; Bertulli R; Hutanu I; Deraco M

INSTITUCIÓN / INSTITUTION: - Department of Surgery, Fondazione IRCCS Istituto Nazionale Tumori, Via Venezian, 1 20133 Milan, Italy.

RESUMEN / SUMMARY: - BACKGROUND: Prognosis of diffuse malignant peritoneal mesothelioma (DMPM) has been recently improved by cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (HIPEC). As with other peritoneal surface malignancies, the survival benefit is maximal when a complete surgical cytoreduction is achieved, but additional factors predicting long-term outcome are still poorly understood. We sought to investigate outcome and prognostic factors in patients with DMPM treated by complete cytoreduction and HIPEC. METHODS: From a prospective database, we selected 108 patients with DMPM undergoing complete cytoreduction (residual tumour nodules 2.5mm) and closed-abdomen HIPEC with cisplatin and doxorubicin or mitomycin-C. Twenty-seven patient-, tumour- and treatment-related variables were assessed by multivariate analysis with respect to overall (OS) and progression-free (PFS) survival. A panel of immunohistochemical markers was tested. RESULTS: Operative mortality was 1.9% and major morbidity 38.9%. Median follow-up was 48.8 months (95% confidence interval (CI) 37.1-60.6). Median OS and PFS were 63.2 months (95%CI 29.6-96.7) and 25.1 months (95%CI 5.1-45.1). The survival curve reached a plateau after 7 years, representing 19 actual survivors of 39 patients (43.6%) with potential

follow-up 7years. Cytokeratin 5/6, calretinin, Wilms tumour-1 (WT-1), podoplanin and epithelial growth factor receptor (EGFR) were mostly positive. At multivariate analysis, epithelial histological subtype, negative lymph-nodes, 10% Ki67-positive cells correlated with both increased OS and PFS. Positive podoplanin correlated to increased PFS. CONCLUSIONS: After complete cytoreduction and HIPEC, prognosis of DMPM is primarily dependent on pathologic and biologic features. Patients with DMPM surviving 7years appeared to be cured. Cure rate was 43.6%. Proliferative index and podoplanin may be used for prognostic stratification.

[197]

TÍTULO / TITLE: - Activity of gefitinib in a non-small-cell lung cancer patient with both activating and resistance EGFR mutations.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Jul;8(7):e59-60. doi: 10.1097/JTO.0b013e318286cc26.

●● Enlace al texto completo (gratis o de pago)

1097/JTO.0b013e318286cc26

AUTORES / AUTHORS: - Morabito A; Costanzo R; Rachiglio AM; Pasquale R; Sandomenico C; Franco R; Montanino A; De Lutio E; Rocco G; Normanno N

INSTITUCIÓN / INSTITUTION: - Medical Oncology Unit, Thoraco-Pulmonary Department, National Cancer Institute, Napoli, Italy.

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[198]

TÍTULO / TITLE: - 18F-FDG PET Early Response Evaluation of Locally Advanced Non-Small Cell Lung Cancer Treated with Concomitant Chemoradiotherapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Nucl Med. 2013 Jul 17.

●● Enlace al texto completo (gratis o de pago)

2967/jnumed.112.116921

AUTORES / AUTHORS: - Usmanij EA; Geus-Oei LF; Troost EG; Peters-Bax L; van der Heijden EH; Kaanders JH; Oyen WJ; Schuurbijs OC; Bussink J

INSTITUCIÓN / INSTITUTION: - Department of Nuclear Medicine, Radboud University Nijmegen Medical Centre, Nijmegen, The Netherlands.

RESUMEN / SUMMARY: - The potential of 18F-FDG PET changes was evaluated for prediction of response to concomitant chemoradiotherapy in patients with locally advanced non-small cell lung cancer (NSCLC). METHODS: For 28 patients, 18F-FDG PET was performed before treatment, at the end of the second week of treatment, and at 2 wk and 3 mo after the completion of treatment. Standardized uptake value (SUV), maximum SUV, metabolic tumor volume (MTV), and total lesion glycolysis (TLG) were obtained. Early metabolic

changes were defined as fractional change (DeltaTLG) when 18F-FDG PET at the end of the second week was compared with pretreatment 18F-FDG PET. In-treatment metabolic changes, as measured by serial 18F-FDG PET, were correlated with standard criteria of response evaluation of solid tumors by means of CT imaging (Response Evaluation Criteria In Solid Tumors 1.1). Parameters were analyzed for stratification in progression-free survival (PFS). RESULTS: When compared with early metabolic nonresponders, a DeltaTLG decrease of 38% or more was associated with a significantly longer PFS (1-y PFS 80% vs. 36%, P = 0.02). Pretreatment TLG was found to be a prognostic factor for PFS. CONCLUSION: The degree of change in TLG was predictive for response to concomitant chemoradiotherapy as early as the end of the second week into treatment for patients with locally advanced NSCLC. Pretreatment TLG was prognostic for PFS.

[199]

TÍTULO / TITLE: - Genome-wide transcriptional analysis of apoptosis-related genes and pathways regulated by H2AX in lung cancer A549 cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Apoptosis. 2013 Sep;18(9):1039-47. doi: 10.1007/s10495-013-0875-x.

●● Enlace al texto completo (gratis o de pago) [1007/s10495-013-0875-](#)

[X](#)

AUTORES / AUTHORS: - Lu C; Xiong M; Luo Y; Li J; Zhang Y; Dong Y; Zhu Y; Niu T; Wang Z; Duan L

INSTITUCIÓN / INSTITUTION: - Aviation Medicine Research Laboratory, Air Force General Hospital, PLA, Beijing, 100142, China, luchengrong@263.net.

RESUMEN / SUMMARY: - Histone H2AX is a novel tumor suppressor protein and plays an important role in apoptosis of cancer cells. However, the role of H2AX in lung cancer cells is unclear. The detailed mechanism and epigenetic regulation by H2AX remain elusive in cancer cells. We showed that H2AX was involved in apoptosis of lung cancer A549 cells as in other tumor cells. Knockdown of H2AX strongly suppressed apoptosis of A549 cells. We clarified the molecular mechanisms of apoptosis regulated by H2AX based on genome-wide transcriptional analysis. Microarray data analysis demonstrated that H2AX knockdown in A549 cells affected expression of 3,461 genes, including upregulation of 1,435 and downregulation of 2,026. These differentially expressed genes were subjected to bioinformatic analysis for exploring biological processes regulated by H2AX in lung cancer cells. Gene ontology analysis showed that H2AX affected expression of many genes, through which, many important functions including response to stimuli, gene expression, and apoptosis were involved in apoptotic regulation of lung cancer cells. Pathway analysis identified the mitogen-activated protein kinase signaling pathway and apoptosis as the most important pathways targeted by H2AX. Signal

transduction pathway networks analysis and chromatin immunoprecipitation assay showed that two core genes, NFKB1 and JUN, were involved in apoptosis regulated by H2AX in lung cancer cells. Taken together, these data provide compelling clues for further exploration of H2AX function in cancer cells.

[200]

TÍTULO / TITLE: - A clinical risk model for the evaluation of bronchopleural fistula in non-small cell lung cancer after pneumonectomy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Thorac Surg. 2013 Aug;96(2):419-24. doi: 10.1016/j.athoracsur.2013.04.050. Epub 2013 Jun 16.

●● Enlace al texto completo (gratis o de pago)

[1016/j.athoracsur.2013.04.050](#)

AUTORES / AUTHORS: - Hu XF; Duan L; Jiang GN; Wang H; Liu HC; Chen C

INSTITUCIÓN / INSTITUTION: - Department of General Thoracic Surgery, Shanghai Pulmonary Hospital, Tongji University School of Medicine, Shanghai, China.

RESUMEN / SUMMARY: - BACKGROUND: There are no reliable risk factors to predict bronchopleural fistula (BPF) formation in patients undergoing pneumonectomy for non-small cell lung cancer (NSCLC). This study aims to create a validated clinical model based on the risk factors for BPF after pneumonectomy. The model to estimate the risk of BPF may help select patients for intervention therapy to reduce the rate of BPF after pneumonectomy. METHODS: This retrospective analysis included 684 patients with NSCLC who underwent pneumonectomy at our institution from 1995 to 2012. The rates of BPF were estimated by the Kaplan-Meier method. Univariate and multivariate analyses were performed to identify the independent risk factors for the BPF and based on which a clinical model for the prediction of the incidence of BPF was formed. RESULTS: The incidence of BPF was 4.4% (30 of 684 patients). Three factors were independently associated with BPF after pneumonectomy for NSCLC: neoadjuvant therapy (hazard ratio, 2.479), diabetes mellitus (hazard ratio, 1.061), and age 70 years or older (hazard ratio, 1.175). A scoring system for BPF was developed by assigning 2 points for a major risk factor (neoadjuvant therapy) and 1 point for each minor risk factor (diabetes mellitus and age \geq 70 years). The 684 patients were divided into a low-risk group (score, 0 to 1), moderate-risk group (score, 2), and high-risk group (score, \geq 3), with respective incidences of early BPF after pneumonectomy of 2.4%, 18.2%, and 58.3%. CONCLUSIONS: This model, based on readily available clinical characteristics, can estimate the risk of BPF after pneumonectomy in the NSCLC patients, independent of early BPF and late BPF classifications. This model could be used to select patients for intervention therapy (parenteral alimentation, control of blood glucose level,

oxygen therapy, and strengthening the antibiotic treatment) if validated in independent data sets.

[201]

TÍTULO / TITLE: - A Functional Variant at 19q13.3, rs967591G>A, Is Associated with Shorter Survival of Early-Stage Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Cancer Res. 2013 Aug 1;19(15):4185-95. doi: 10.1158/1078-0432.CCR-12-2792. Epub 2013 Jun 17.

●● Enlace al texto completo (gratis o de pago) [1158/1078-0432.CCR-12-2792](#)

AUTORES / AUTHORS: - Jeon HS; Jin G; Kang HG; Choi YY; Lee WK; Choi JE; Bae EY; Yoo SS; Lee SY; Lee EB; Kim YT; Lee J; Cha SI; Kim CH; Jheon S; Kim IS; Park JY

INSTITUCIÓN / INSTITUTION: - Authors' Affiliations: Lung Cancer Center, Kyungpook National University Medical Center; Departments of Biochemistry and Cell Biology, Statistics Center, Internal Medicine and Thoracic Surgery, School of Medicine, Kyungpook National University, Daegu, Republic of Korea; Cancer Research Center, Yanbian University School of Basic Medicine, Yanji, Jilin Province, China; and Department of Thoracic and Cardiovascular Surgery, Seoul National University School of Medicine, Seoul, Republic of Korea.

RESUMEN / SUMMARY: - **PURPOSE:** This study was conducted to investigate the associations between single-nucleotide polymorphisms (SNP) in 19q13.3 and survival of patients with early-stage non-small cell lung cancer (NSCLC), and to define the causative functional SNP of the association. **EXPERIMENTAL DESIGN:** A two-stage study design was used to evaluate five SNPs in relation to survival outcomes in 328 patients and then to validate the results in an independent patient population (n = 483). Luciferase assay and real-time PCR were conducted to examine functional relevance of a potentially functional SNP. **RESULTS:** Of the five SNPs, three SNPs (rs105165C>T, rs967591G>A, and rs735482A>C) were significantly associated with survival outcomes in a stage I study. The rs967591A allele had significantly higher activity of the CD3EAP promoter compared with the rs967591G allele (P = 0.002), but the SNP did not have an effect on the activity of PPP1R13L promoter. The rs967591G>A was associated with the level of CD3EAP mRNA expression in lung tissues (P = 0.01). The rs967591G>A exhibited consistent associations in a stage II study. In combined analysis, the rs967591 AA genotype exhibited a worse overall survival (adjusted HR = 1.69; 95% confidence interval = 1.29-2.20; P = 0.0001). **CONCLUSION:** The rs967591G>A affects CD3EAP expression and thus influences survival in early-stage NSCLC. The analysis of the rs967591G>A polymorphism can help identify patients at high risk of a poor disease outcome. Clin Cancer Res; 19(15); 4185-95. ©2013 AACR.

[202]

TÍTULO / TITLE: - Diffuse mesothelioma of the peritoneum: a pathological study of 64 tumours treated with cytoreductive therapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pathology. 2013 Aug;45(5):464-73. doi: 10.1097/PAT.0b013e3283631cce.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1097/PAT.0b013e3283631cce](#)

AUTORES / AUTHORS: - Lee M; Alexander HR; Burke A

INSTITUCIÓN / INSTITUTION: - University of Maryland Medical Center, Baltimore, MD, United States.

RESUMEN / SUMMARY: - BACKGROUND: Diffuse peritoneal mesothelioma (DPM) forms a spectrum of indolent surface tumours to malignant invasive cancers. There are few pathological series that span well and poorly differentiated lesions that show diffuse peritoneal spread. METHODS: Sixty-four DPM treated by initial cytoreductive therapy were retrospectively reviewed. Tumours were classified by surface and invasive growth pattern and correlated with risk factors, peritoneal cancer index (PCI) and completeness of cytoreduction (CCR). Degree of invasion was quantitated as absent (0), into stroma (I), into fat (II), and into adjacent structures (III) and was correlated with cytological features. Selected immunohistochemical stains were performed. RESULTS: There were three well differentiated papillary mesotheliomas (WDPM; type A), four multicystic mesothelioma (type B), 22 tubulopapillary epithelioid mesotheliomas (type C), and 35 poorly differentiated epithelioid mesotheliomas with solid or sarcomatoid growth (Type D). Seven type D tumours had prominent sarcomatoid areas, 12 deciduoid areas, and four lymphohistiocytoid features. Risk factors were present in all groups except type A, and included prior abdominal surgery (n = 24), asbestos exposure (n = 5) and radiation (n = 2). Extra-pleural mesothelioma was present in all groups except type B (total n = 7, 11%). Two type A and eight type C tumours lacked invasion; only type D showed level III invasion. The invasive portion of one type A tumour and two type B tumours showed adenomatoid features. PCI and CCR were greater in type D compared to the other groups (p = 0.02), as well as mitotic rate, degree of necrosis, and nuclear pleomorphism (p < 0.001). Degree of invasion was strongly correlated with CCR (p = 0.007), necrosis (p < 0.0001), nuclear grade (p < 0.0001), and mitotic rate (p = 0.001), but not PCI (p = 0.1). Immunohistochemical results were similar across groups, with frequent positivity for CA125 (94%), EGFR (94%) and calretinin (93%), followed by p16 (85%), cytokeratin 5,6 (76%), D2-40 (71%) and WT-1 (47%). PAX-8 was negative in all tumours, except one type A tumour that showed diffuse nuclear positivity. CONCLUSIONS: Diffuse peritoneal mesotheliomas can be classified into four groups that reflect invasive potential, degree of adverse histological

features, and amenability for CCR. Non-invasive tumours include both type A and type C tumours.

[203]

TÍTULO / TITLE: - Abdominal Lymph Node Metastasis in Patients With Non-Small-Cell Lung Cancer as Shown by PET/CT.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Nucl Med. 2013 Sep;38(9):691-4. doi: 10.1097/RLU.0b013e31829b9bed.

●● Enlace al texto completo (gratis o de pago)

[1097/RLU.0b013e31829b9bed](#)

AUTORES / AUTHORS: - Karyagar S; Koc ZP; Karyagar SS; Ozturk I; Cengiz E; Sayc Y; Balci TA

INSTITUCIÓN / INSTITUTION: - From the *Division of Nuclear Medicine, Kanuni Training Hospital, Trabzon; daggerDepartment of Nuclear Medicine, School of Medicine, Firat University, Elazig; double daggerDivision of Oncology, Kanuni Training Hospital, Trabzon; and section signDepartment of Oncology, Rize University Medical Faculty, Rize, Turkey.

RESUMEN / SUMMARY: - **PURPOSE:** The aim of this study is to investigate the frequency and the spread of abdominal lymph node metastasis in patients with non-small-cell lung cancer (NSCLC) by F-FDG PET/CT. **PATIENTS AND METHODS:** Retrospective evaluation of the F-FDG PET/CT examinations of 1191 patients diagnosed with NSCLC was performed. The metastatic abdominal lymph nodes of the patients were classified as inside the routine imaging field (covering the field of chest CT including adrenal glands) and outside the field. **RESULTS:** Seventy-four patients (6 F, 68 M; mean: 61 +/- 11 years old) among 1191 patients (6%) were identified to have abdominal lymph node metastases. These abdominal lymph node metastasis changed management in 10 out of 74 patients (14%), and there were lymph node metastases outside the routine conventional imaging field in 43 (58%) patients. **CONCLUSION:** F-FDG PET/CT provided identification of the distant metastatic lymph nodes out of conventional imaging field in more than half of NSCLC patients with abdominal metastasis which changed patient management in 14% of the patients due to abdominal lymph node metastasis outside the routine imaging field. This study shows the necessity of imaging NSCLC patients with an imaging protocol with larger imaging field like PET/CT.

[204]

TÍTULO / TITLE: - Unexpected Detection of Brain Metastases by 18F-NaF PET/CT in a Patient With Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Nucl Med. 2013 Jul 19.

- Enlace al texto completo (gratis o de pago)

[1097/RLU.0b013e31828162ae](#)

AUTORES / AUTHORS: - Wu J; Zhu H; Ji H

INSTITUCIÓN / INSTITUTION: - From the Department of Nuclear Medicine, Jinling Hospital, Clinical School of Medical College, Nanjing University, Nanjing, People's Republic of China.

RESUMEN / SUMMARY: - In recent years, the inconsistent supply of Tc and the increasingly widespread use of PET/CT have led to a renewed interest in PET/CT bone scans using F-NaF. Recently, a 64-year-old man with biopsy-proven lung cancer underwent an F-NaF PET/CT bone scan due to a shortage of Tc. Unexpectedly, multiple nodular foci of increased tracer uptake were present in the brain, whereas there were no definitive bone metastases detected. Subsequently, brain MRI confirmed the presence of brain metastases.

[205]

TÍTULO / TITLE: - High Expression of CHRNA1 is Associated with Reduced Survival in Early Stage Lung Adenocarcinoma after Complete Resection.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Surg Oncol. 2013 Jun 18.

- Enlace al texto completo (gratis o de pago) [1245/s10434-013-3034-](#)

[2](#)

AUTORES / AUTHORS: - Chang PM; Yeh YC; Chen TC; Wu YC; Lu PJ; Cheng HC; Lu HJ; Chen MH; Chou TY; Huang CY

INSTITUCIÓN / INSTITUTION: - Institute of Clinical Medicine, National Yang Ming University, Taipei, Taiwan.

RESUMEN / SUMMARY: - BACKGROUND: Non-small cell lung cancer (NSCLC) is the leading cause of cancer deaths around the world, and a high recurrence rate after complete resection is an important issue reducing the cure rate and survival of patients with early stage NSCLC. Several pathologic biomarkers are associated with recurrence in early stage lung cancer after complete resection. METHODS: We evaluated the expression and prognostic value of the alpha1 subunit of the nicotinic acetylcholine receptor (CHRNA1) as well as other pathologic features of tumor tissues resected from patients with stage I adenocarcinoma of the lung. RESULTS: A high ratio (173/185) of CHRNA1 expression (93.5 %) was found in stage I lung adenocarcinoma. In the multivariate survival analysis, tumor necrosis, angiolymphatic invasion, perineural invasion, and CHRNA1 expression were independent poor prognostic factors for both recurrence-free and overall survival (OS). Patients expressing CHRNA1 had worse median recurrence-free survival (60.6 vs. 77.9 months, P = 0.03) and OS (65.1 vs. 77.9 months, P = 0.04) compared with CHRNA1-negative patients. CONCLUSIONS: CHRNA1 expression could be directly tested from the tumor after complete resection. In early stage NSCLC, it could be a useful prognostic factor for recurrence and survival.

[206]

TÍTULO / TITLE: - Adaptive stereotactic body radiation therapy planning for lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Radiat Oncol Biol Phys. 2013 Sep 1;87(1):209-15. doi: 10.1016/j.ijrobp.2013.05.008. Epub 2013 Jun 19.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1016/j.ijrobp.2013.05.008](#)

AUTORES / AUTHORS: - Qin Y; Zhang F; Yoo DS; Kelsey CR; Yin FF; Cai J

INSTITUCIÓN / INSTITUTION: - Medical Physics Graduate Program, Duke University, Durham, North Carolina.

RESUMEN / SUMMARY: - **PURPOSE:** To investigate the dosimetric effects of adaptive planning on lung stereotactic body radiation therapy (SBRT). **METHODS AND MATERIALS:** Forty of 66 consecutive lung SBRT patients were selected for a retrospective adaptive planning study. CBCT images acquired at each fraction were used for treatment planning. Adaptive plans were created using the same planning parameters as the original CT-based plan, with the goal to achieve comparable conformality index (CI). For each patient, 2 cumulative plans, nonadaptive plan (PNON) and adaptive plan (PADP), were generated and compared for the following organs-at-risks (OARs): cord, esophagus, chest wall, and the lungs. Dosimetric comparison was performed between PNON and PADP for all 40 patients. Correlations were evaluated between changes in dosimetric metrics induced by adaptive planning and potential impacting factors, including tumor-to-OAR distances (dT-OAR), initial internal target volume (ITV1), ITV change (DeltaITV), and effective ITV diameter change (DeltadITV). **RESULTS:** 34 (85%) patients showed ITV decrease and 6 (15%) patients showed ITV increase throughout the course of lung SBRT. Percentage ITV change ranged from -59.6% to 13.0%, with a mean (+/-SD) of -21.0% (+/-21.4%). On average of all patients, PADP resulted in significantly ($P=0$ to .045) lower values for all dosimetric metrics. DeltadITV/dT-OAR was found to correlate with changes in dose to 5 cc (DeltaD5cc) of esophagus ($r=0.61$) and dose to 30 cc (DeltaD30cc) of chest wall ($r=0.81$). Stronger correlations between DeltadITV/dT-OAR and DeltaD30cc of chest wall were discovered for peripheral ($r=0.81$) and central ($r=0.84$) tumors, respectively. **CONCLUSIONS:** Dosimetric effects of adaptive lung SBRT planning depend upon target volume changes and tumor-to-OAR distances. Adaptive lung SBRT can potentially reduce dose to adjacent OARs if patients present large tumor volume shrinkage during the treatment.

[207]

TÍTULO / TITLE: - Pulmonary Adenocarcinoma in a Young Patient of Pulmonary Langerhans Cell Histiocytosis (PLCH).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):e69-70. doi: 10.1097/JTO.0b013e31828e89c4.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e31828e89c4](#)

AUTORES / AUTHORS: - Bhardwaj H; Bhardwaj B; Levin D

INSTITUCIÓN / INSTITUTION: - *Section of Pulmonary & Critical Care Medicine, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma; and daggerDepartment of Chest Medicine and Tuberculosis, Indira Gandhi Medical College, Shimla, Himachal Pradesh, India.

[208]

TÍTULO / TITLE: - A convenient synthesis of lubeluzole and its enantiomer: Evaluation as chemosensitizing agents on human ovarian adenocarcinoma and lung carcinoma cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Bioorg Med Chem Lett. 2013 Sep 1;23(17):4820-3. doi: 10.1016/j.bmcl.2013.06.077. Epub 2013 Jul 4.

●● Enlace al texto completo (gratis o de pago)

[1016/j.bmcl.2013.06.077](#)

AUTORES / AUTHORS: - Cavalluzzi MM; Viale M; Bruno C; Carocci A; Catalano A; Carrieri A; Franchini C; Lentini G

INSTITUCIÓN / INSTITUTION: - Dipartimento di Farmacia-Scienze del Farmaco, Università degli Studi di Bari 'Aldo Moro', via E. Orabona 4, 70126 Bari, Italy.

RESUMEN / SUMMARY: - Lubeluzole, a neuroprotective anti-ischemic drug, and its enantiomer were prepared following a convenient procedure based on hydrolytic kinetic resolution. The ee values were >99% and 96%, respectively, as assessed by HPLC analysis. The chemosensitizing effects of both enantiomers were evaluated in combination with either doxorubicin (human ovarian adenocarcinoma A2780 cells) or paclitaxel (human lung carcinoma A549 cells) by the MTT assay. At the lowest concentrations used, lubeluzole showed an overall and remarkable tendency to synergize with both anticancer drugs. In ovarian cancer cells a clear prevalence of antagonistic effect was observed for the R-enantiomer. The synergistic effects of lubeluzole for both drugs were observed over a wide concentration window (0.005-5µM), the lowest limit being at least 40 times lower than human plasma concentrations previously reported as causing serious side effects.

[209]

TÍTULO / TITLE: - Clinical implications of fibroblast activation protein-alpha in non-small cell lung cancer after curative resection: a new predictor for prognosis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cancer Res Clin Oncol. 2013 Jul 9.

- Enlace al texto completo (gratis o de pago) 1007/s00432-013-1471-8

AUTORES / AUTHORS: - Liao Y; Ni Y; He R; Liu W; Du J

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Provincial Hospital Affiliated to Shandong University, Shandong University, 324 Jingwu Road, Jinan, 250021, People's Republic of China.

RESUMEN / SUMMARY: - BACKGROUND: Fibroblast activation protein-alpha (FAP-alpha), which is a serine protease specially expressed on the surface of the cancer stromal cells, plays an important role in the progression and prognosis in diverse malignancies. However, the role of FAP-alpha in non-small cell lung cancer (NSCLC) is still unknown. MATERIALS AND METHODS: We enrolled 59 NSCLC patients who received complete resection. Sections of paraffin-embedded primary NSCLC specimens of all the patients were stained with antibody directed against FAP-alpha. Overall, percentage (Grade 0-3) and intensity (0-3+) of stromal FAP-alpha staining of the tumor were assessed. RESULTS: FAP-alpha was detected in >76 % of the specimens examined, and its high expression seemed to be correlated with poor tumor differentiation (P = 0.06). Furthermore, both increased FAP-alpha staining percentage and intensity were associated with worse overall survival of the patients (percentage, P = 0.0087; intensity, P = 0.05). Higher FAP-alpha staining percentage was observed in those patients with increased peripheral neutrophil and lymphocyte count ratio (P = 0.034). CONCLUSIONS: FAP-alpha is highly expressed in cancer stroma and also a predictor of poor survival of NSCLC patients. Elevated FAP-alpha expression may be associated with inflammation and suppressed lymphocyte-dependent immune response, which then result in the tumor progression. Therefore, FAP-alpha plays an important role in the progression of NSCLC, and its high expression is a predictor of poor survival. Targeting FAP-alpha may be a novel strategy for NSCLC therapy.

[210]

TÍTULO / TITLE: - The frequency and impact of ROS1 rearrangement on clinical outcomes in never smokers with lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Oncol. 2013 Jun 19.

- Enlace al texto completo (gratis o de pago) 1093/annonc/mdt220

AUTORES / AUTHORS: - Kim HR; Lim SM; Kim HJ; Hwang SK; Park JK; Shin E; Bae MK; Ou SH; Wang J; Jewell SS; Kang DR; Soo RA; Haack H; Kim JH; Shim HS; Cho BC

INSTITUCIÓN / INSTITUTION: - Yonsei Cancer Center.

RESUMEN / SUMMARY: - BACKGROUND: To determine the frequency and predictive impact of ROS1 rearrangements on treatment outcomes in never-smoking patients with lung adenocarcinoma. PATIENTS AND METHODS: We concurrently analyzed ROS1 and ALK rearrangements and mutations in the epidermal growth factor receptor (EGFR), and KRAS in 208 never smokers with lung adenocarcinoma. ROS1 and ALK rearrangements were identified by fluorescent in situ hybridization. RESULTS: Of 208 tumors screened, 7 (3.4%) were ROS1 rearranged, and 15 (7.2%) were ALK-rearranged. CD74-ROS1 fusions were identified in two patients using reverse transcriptase-polymerase chain reaction. The frequency of ROS1 rearrangement was 5.7% (6 of 105) among EGFR/KRAS/ALK-negative patients. Patients with ROS1 rearrangement had a higher objective response rate (ORR; 60.0% versus 8.5%; P = 0.01) and a longer median progression-free survival (PFS; not reached versus 3.3 months; P = 0.008) to pemetrexed than those without ROS1/ALK rearrangement. The PFS to EGFR-tyrosine kinase inhibitors in patients harboring ROS1 rearrangement was shorter than those without ROS1/ALK rearrangement (2.5 versus 7.8 months; P = 0.01). CONCLUSIONS: The frequency of ROS1 rearrangements in clinically selected patients is higher than that reported for unselected patients, suggesting that ROS1 rearrangement is a druggable target in East-Asian never smokers with lung adenocarcinoma. Given the different treatment outcomes to conventional therapies and availability of ROS1 inhibitors, identification of ROS1 rearrangement can lead to successful treatment in ROS1-rearranged lung adenocarcinomas.

[211]

TÍTULO / TITLE: - Testing for ALK rearrangement in lung adenocarcinoma: a multicenter comparison of immunohistochemistry and fluorescent in situ hybridization.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mod Pathol. 2013 Jun 7. doi: 10.1038/modpathol.2013.87.

- Enlace al texto completo (gratis o de pago)

[1038/modpathol.2013.87](#)

AUTORES / AUTHORS: - Selinger CI; Rogers TM; Russell PA; O'Toole S; Yip P; Wright GM; Wainer Z; Horvath LG; Boyer M; McCaughan B; Kohonen-Corish MR; Fox S; Cooper WA; Solomon B

INSTITUCIÓN / INSTITUTION: - Department of Tissue Pathology and Diagnostic Oncology, Royal Prince Alfred Hospital, Camperdown, NSW, Australia.

RESUMEN / SUMMARY: - Rearrangements of anaplastic lymphoma kinase (ALK) gene in non-small cell lung cancer (NSCLC) define a molecular subgroup of tumors characterized clinically by sensitivity to ALK tyrosine kinase inhibitors such as crizotinib. Although ALK rearrangements may be detected by reverse

transcriptase-PCR, immunohistochemistry or fluorescence in situ hybridization (FISH), the optimal clinical strategy for identifying ALK rearrangements in clinical samples remains to be determined. We evaluated immunohistochemistry using three different antibodies (ALK1, 5^a4 and D5F3 clones) to detect ALK rearrangements and compared those with FISH. We report the frequency and clinicopathologic features of lung cancers harboring ALK translocations in 594 resected NSCLCs (470 adenocarcinomas; 83 squamous carcinomas, 26 large cell carcinomas and 15 other histological subtypes) using a tissue microarray approach. We identified an ALK gene rearrangement in 7/594 cases (1%) by FISH and all anti-ALK antibodies correctly identified the seven ALK-positive cases (100% sensitivity), although the intensity of staining was weak in some cases. These data indicate that the use of antibodies with high sensitivity and avidity to ALK may provide an effective pre-screening technique to complement the more expensive and labor-intensive approach of ALK FISH testing. *Modern Pathology* advance online publication, 7 June 2013; doi:10.1038/modpathol.2013.87.

[212]

TÍTULO / TITLE: - Video-assisted thoracoscopic surgery for stage I non-small cell lung cancer: long-term survival and prognostic factors.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - *Tumour Biol.* 2013 Jun 25.

- Enlace al texto completo (gratis o de pago) [1007/s13277-013-0911-](#)

Z

AUTORES / AUTHORS: - Xiong X; Shao W; Yin W; Xu X; Chen H; Qiu Y; He J

INSTITUCIÓN / INSTITUTION: - Department of Cardiothoracic Surgery, the First Affiliated Hospital of Guangzhou Medical College, Guangzhou Institute of Respiratory Disease & China State Key Laboratory of Respiratory Disease. No. 151, Yanjiang Rd, Guangzhou, 510120, Guangdong Province, People's Republic of China.

RESUMEN / SUMMARY: - The purpose of this study was to evaluate the long-term outcomes of video-assisted thoracoscopic surgery (VATS) major pulmonary resection in patients with stage I non-small cell lung cancer (NSCLC). Of the 411 stage I patients, 318 (77.4 %) underwent complete VATS (c-VATS), while 89 (21.7 %) underwent assisted VATS (a-VATS). There were no intraoperative deaths. There were three deaths (0.7 %) within 30 postoperative days. The 1-, 3-, and 5-year survival rates were 95.1 % (95 % CI, 92.9-97.3 %), 83.1 % (95 % CI, 79.2-87.0 %), and 73.4 % (95 % CI, 68.1-78.7 %), respectively. Univariate analysis by log-rank test revealed that tumor-node-metastasis (TNM) stage, primary tumor (pT) status, and type of resection were statistically significant factors affecting overall survival (OS; P = 0.029, P = 0.025, and P = 0.005, respectively). Less acute TNM stage and less extensive resection were significantly predictive for longer OS by multivariate analysis as well (P = 0.024

and $P = 0.006$, respectively). In experienced hands, c-VATS or a-VATS can be considered as an alternative to traditional incision in patients with stage I NSCLC. Lower TNM stage and less extensive resection were significantly predictive for better OS. A prospective randomized controlled study on a larger scale is required to reach definitive conclusions regarding the efficacy of VATS relative to other techniques.

[213]

TÍTULO / TITLE: - An oncolytic vaccinia virus expressing the human sodium iodine symporter prolongs survival and facilitates SPECT/CT imaging in an orthotopic model of malignant pleural mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Surgery. 2013 Jul 23. pii: S0039-6060(13)00326-7. doi: 10.1016/j.surg.2013.06.004.

●● Enlace al texto completo (gratis o de pago) 1016/j.surg.2013.06.004

AUTORES / AUTHORS: - Belin LJ; Ady JW; Lewis C; Marano D; Gholami S; Mojica K; Eveno C; Longo V; Zanzonico PB; Chen NG; Szalay AA; Fong Y

INSTITUCIÓN / INSTITUTION: - Department of Surgery, Memorial Sloan-Kettering Cancer Center, New York, NY.

RESUMEN / SUMMARY: - BACKGROUND: The purpose of this work was to examine the ability of an oncolytic vaccinia virus expressing the human sodium iodine transporter (hNIS) to provide real time monitoring of viral therapy and effective treatment of malignant pleural mesothelioma (MPM). METHODS: Infectivity and cytotoxic effects of GLV-1h153 on mesothelioma cell lines of all histologic subtypes were assayed in vitro. Viral replication was examined by standard viral plaque assay. Orthotopic MPM xenografts were generated in athymic nude mice, treated with intrapleural GLV-1h153, and assessed for effect on tumor burden and survival. Orthotopic tumors were also imaged on single photon emission computed tomography (SPECT)/computed tomography (CT) after ^{131}I administration. RESULTS: GLV-1h153-infected and killed all cell lines in a time- and concentration-dependent manner. Viral replication demonstrated a >2.5 -log increase in titer over 4 days. Intrapleural treatment of orthotopic MPM xenografts resulted in a significant decrease in tumor burden 1 week after treatment and an improvement in survival. Infection of orthotopic xenografts was both therapeutic and facilitated monitoring by ^{131}I -SPECT/CT via expression of hNIS in infected tissue. CONCLUSION: Our results suggest that GLV-1h153 may be a promising therapeutic agent for MPM and warrants further investigation.

[214]

TÍTULO / TITLE: - Pharmacological Modulation of Cytotoxicity and Cellular Uptake of Anti-cancer Drugs by PDE5 Inhibitors in Lung Cancer Cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pharm Res. 2013 Jul 25.

●● Enlace al texto completo (gratis o de pago) [1007/s11095-013-1134-](#)

[0](#)

AUTORES / AUTHORS: - Li Q; Shu Y

INSTITUCIÓN / INSTITUTION: - Department of Pharmaceutical Sciences, School of Pharmacy, University of Maryland at Baltimore, 20 Penn Street, HSFII Room 555, Baltimore, Maryland, 21201, USA.

RESUMEN / SUMMARY: - PURPOSE: Previous research has led to the recognition of a cGMP signaling pathway governing drug transport. This study is to investigate whether inhibitors of phosphodiesterase type 5 (PDE5), which increase intracellular cGMP levels, modulate the cytotoxicity and uptake of anti-cancer drugs in cancer cells. METHODS: The experiments were conducted with and without PDE5 inhibitors: dipyridamole, vardenafil, and/or sildenafil. The cytotoxicity of doxorubicin, cisplatin and oxaliplatin was determined in multiple cancer cell lines derived from different tissues. The cellular uptake of structurally diverse compounds was further examined in lung cancer cells with and without various endocytotic inhibitors. The tumor accumulation and the anti-tumor effect of trastuzumab were examined in a lung cancer xenograft mouse model. RESULTS: Dipyridamole could modulate the cytotoxicity of doxorubicin, cisplatin, and oxaliplatin in cancer cells. Particularly, PDE5 inhibitors increased cellular uptake of structurally diverse compounds into lung cancer cells both in vitro and in vivo. The effect of vardenafil on drug uptake could be blocked by endocytotic inhibitors. The growth of lung cancer xenograft in nude mice was significantly suppressed by addition of vardenafil to trastuzumab treatment. CONCLUSION: PDE5 inhibitors may increase the efficacy of anti-cancer drugs by increasing endocytosis-mediated cellular drug uptake, and thus serve as adjuvant therapy for certain cancers such as lung cancer.

[215]

TÍTULO / TITLE: - Clinical predictor of pre- or minimally invasive pulmonary adenocarcinoma: possibility of sub-classification of clinical T1a.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cardiothorac Surg. 2013 Jul 18.

●● Enlace al texto completo (gratis o de pago) [1093/ejcts/ezt329](#)

AUTORES / AUTHORS: - Sawabata N; Kanzaki R; Sakamoto T; Kusumoto H; Kimura T; Nojiri T; Kawamura T; Susaki Y; Funaki S; Nakagiri T; Shintani Y; Inoue M; Minami M; Okumura M

INSTITUCIÓN / INSTITUTION: - Department of General Thoracic Surgery, Osaka University Graduate School of Medicine, Suita, Osaka, Japan.

RESUMEN / SUMMARY: - OBJECTIVES: A new pathological classification for pre- and minimally invasive adenocarcinoma has been established, with distinction prior to surgery crucial because of the extremely good prognosis. METHODS:

Of 412 patients who underwent surgery for lung cancer from 2008 to 2011, 110 classified as c-stage I had each of the following four parameters assessed for predictive power for PRE or MIN adenocarcinoma and relapse-free survival (RFS): (i) whole tumour size (WS) shown by computed tomography (CT), (ii) size of the solid (SS) component in CT findings, (iii) maximum standard uptake value in fluorodeoxyglucose positron emission tomography (FDG-PET)/CT scan images (SUVmax) and (iv) serum level of carcinoembryonic antigen. RESULTS: For prediction of PRE or MIN adenocarcinoma, the area under the receiver-operating curve was >0.7 for all the four parameters, while only SS was found to be an independent factor in multivariate logistic regression analysis. In Cox proportional hazard model analysis, SS and SUVmax were statistically significant, and SS was exclusively independent in multivariate analysis. Differences in RFS between T1a and T1b were more pronounced when using SS compared with WS. In the sub-classification of T1a, we used a breakpoint of 1.0 cm in SS (T1a-alpha and T1a-beta), which resulted in a 2-year RFS rate of 1.00 for T1a-alpha (n = 21), 0.89 for T1a-beta (n = 27) and 0.68 for T1b (n = 26) (P = 0.002 between T1a-beta and T1b). CONCLUSIONS: The SS parameter was useful to distinguish PRE and MIN adenocarcinoma from other types of lung cancer, and set a T1a sub-classification.

[216]

TÍTULO / TITLE: - Tsc1-Tp53 loss induces mesothelioma in mice, and evidence for this mechanism in human mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncogene. 2013 Jul 15. doi: 10.1038/onc.2013.280.

●● Enlace al texto completo (gratis o de pago) [1038/onc.2013.280](#)

AUTORES / AUTHORS: - Guo Y; Chirieac LR; Bueno R; Pass H; Wu W; Malinowska IA; Kwiatkowski DJ

INSTITUCIÓN / INSTITUTION: - Division of Translational Medicine, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA.

RESUMEN / SUMMARY: - Mesothelioma is diagnosed in approximately 2500 patients in the United States every year, most often arising in the pleural space, but also occurring as primary peritoneal mesothelioma. The vast majority of patients with mesothelioma die of their disease within 3 years. We developed a new mouse model of mesothelioma by bladder or intraperitoneal injection of adenovirus Cre into mice with conditional alleles of each of Tp53 and Tsc1. Such mice began to develop malignant ascites about 6 months after injection, which was due to peritoneal mesothelioma, on the basis of tumor morphology and immunohistochemical staining. Mesothelioma cell lines were established, which showed loss of both Tsc1 and Tp53, with mammalian target of rapamycin complex (mTORC)1 activation. Treatment of mice with malignant ascites due to mesothelioma with rapamycin led to a marked reduction in ascites, extended

survival and a 95-99% reduction in the mesothelioma tumor volume, in comparison with vehicle-treated mice. To see whether TSC1/TSC2 loss was a common genetic event in human mesothelioma, we examined nine human mesothelioma cell lines, and found that four of nine showed persistent activation of mTORC1, although none had loss of TSC1 or TSC2. A tissue microarray analysis of 198 human mesothelioma specimens showed that 33% of cases had reduced TSC2 expression and 60% showed activation of mTOR, indicating that mTOR activation is common in human mesothelioma, suggesting that it is a potential therapeutic target. Oncogene advance online publication, 15 July 2013; doi:10.1038/onc.2013.280.

[217]

TÍTULO / TITLE: - 5-aminolaevulinic acid/photo-dynamic therapy and gefitinib in non-small cell lung cancer cell lines: a potential strategy to improve gefitinib therapeutic efficacy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cell Prolif. 2013 Aug;46(4):382-95. doi: 10.1111/cpr.12040.

●● Enlace al texto completo (gratis o de pago) [1111/cpr.12040](#)

AUTORES / AUTHORS: - Postiglione I; Chiaviello A; Aloj SM; Palumbo G

INSTITUCIÓN / INSTITUTION: - Department of Molecular Medicine and Health Biotechnology, University Federico II, Naples, 80131, Italy.

RESUMEN / SUMMARY: - **OBJECTIVES:** Often, non-small cell lung cancers (NSCLC) respond only poorly to the tyrosine kinase inhibitor (TKI) gefitinib, which targets the epidermal growth factor receptor (EGFR), these poor responders EGFRs lacking activating mutations. In this study, we have attempted to improve TKI response of NSCLC cell lines (A549 and H1299) devoid of EGFR mutations, by combination of gefitinib and 5-ALA/photodynamic therapy (PDT). **MATERIALS AND METHODS:** Cells of the two lines were incubated with gefitinib (from 0.5 to 50 nm, for 48 h) then irradiated at doses ranging from 4 to 20 J/cm²; 5-ALA concentration and incubation time were kept constant (1 mM for 3 h). We analysed cell viability, colony-forming efficiency, cell cycle parameters, proteasome and NF-kappaB activity and expression patterns of specific proteins, after individual or combined treatments. **RESULTS:** Effects (antagonistic, additive or synergistic) of combination treatment were evaluated using a predictive model (combination index) for expected interactive effects and results are consistent with mutual potentiation exceeding simple additivity. Investigation of molecular mechanisms underlying cytotoxic effects indicated that combination treatment impaired proteasome function, inhibited NF-kappaB transcriptional activity and hampered AKT pro-survival signalling. **CONCLUSIONS:** The results of this study show that poor response of cells devoid of EGFR activating mutations to TKIs, can be overcome by combining gefitinib with 5-ALA/photodynamic therapy (PDT).

[218]

TÍTULO / TITLE: - Comment on 'Estimating the asbestos-related lung cancer burden from mesothelioma mortality' - IARC and Chrysotile Risks.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Br J Cancer. 2013 Aug 6;109(3):823-5. doi: 10.1038/bjc.2013.301. Epub 2013 Jun 27.

●● Enlace al texto completo (gratis o de pago) [1038/bjc.2013.301](#)

AUTORES / AUTHORS: - Lemen RA; Frank AL; Soskolne CL; Weiss SH; Castleman B

INSTITUCIÓN / INSTITUTION: - United States Public Health Service (ret.), Rollins School of Public Health, Emory University, Atlanta, GA, USA.

[219]

TÍTULO / TITLE: - Primary salivary gland-type lung cancer: imaging and clinical predictors of outcome.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - AJR Am J Roentgenol. 2013 Jul;201(1):W57-63. doi: 10.2214/AJR.12.9579.

●● Enlace al texto completo (gratis o de pago) [2214/AJR.12.9579](#)

AUTORES / AUTHORS: - Elnayal A; Moran CA; Fox PS; Mawlawi O; Swisher SG; Marom EM

INSTITUCIÓN / INSTITUTION: - 1 Department of Radiology, National Cancer Institute, Cairo, Egypt.

RESUMEN / SUMMARY: - OBJECTIVE. The objective of our study was to assess whether CT features and FDG up-take of primary salivary gland-type tumors of the lung are associated with tumor type, disease stage, or survival.

MATERIALS AND METHODS. CT (n = 30) and PET (n = 15) data of 30 consecutive patients with primary salivary gland-type tumors of the lung were retrospectively evaluated for tumor size, location, and homogeneity and the presence of lymphadenopathy, pleural effusions, and metastases. Maximum FDG uptake and volumetric FDG uptake of the tumors were recorded. The Wilcoxon rank sum and Fisher exact tests and univariate Cox regression were used for statistical calculations. RESULTS. Compared with mucoepidermoid carcinomas, adenoid cystic carcinomas (57%) were larger (mean, 3.5 vs 2.2 cm, respectively; p = 0.03), more frequently involved the central airways (94% vs 63%; p = 0.002), and had a higher median FDG uptake (p = 0.0264). Higher FDG uptake of the primary tumor was associated with nodal tumor involvement (p = 0.05). The median overall survival times for patients with adenoid cystic carcinoma and mucoepidermoid carcinoma were 7.7 and 4.0 years, respectively. Imaging features that significantly affected overall survival included the presence of mediastinal or hilar lymphadenopathy (hazard ratio [HR], 4.33;

95% CI, 1.15-16.26; p = 0.03), suspected metastatic disease (HR, 5.10; 95% CI, 1.27-20.47; p = 0.02), and primary tumor heterogeneity (HR, 3.46; 95% CI, 1.04-11.55; p = 0.04). CONCLUSION. Higher FDG uptake is associated with nodal disease in patients with primary salivary gland-type tumors of the lung but is not predictive of survival, whereas CT features suggestive of advanced disease correlate with worse outcome.

[220]

TÍTULO / TITLE: - CDK-associated Cullin 1 promotes cell proliferation with activation of ERK1/2 in human lung cancer A549 cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biochem Biophys Res Commun. 2013 Jul 19;437(1):108-13. doi: 10.1016/j.bbrc.2013.06.048. Epub 2013 Jun 24.

●● Enlace al texto completo (gratis o de pago) [1016/j.bbrc.2013.06.048](#)

AUTORES / AUTHORS: - Chen TJ; Gao F; Yang T; Thakur A; Ren H; Li Y; Zhang S; Wang T; Chen MW

INSTITUCIÓN / INSTITUTION: - Respiratory Department, The First Affiliated Hospital, Xi'an Jiaotong University College of Medicine, Xi'an 710061, PR China.

RESUMEN / SUMMARY: - Lung cancer is one of the most common causes of cancer-related death in the world, but the mechanisms remain unknown. In this study, we investigated the expression of CDK-associated Cullin 1 (CAC1) in lung cancer, the effect of CAC1 on the proliferation of human lung cancer A549 cells, and the activation of signaling pathways of mitogen-activated protein kinases (MAPKs). Results showed that CAC1 expression was higher levels in human lung carcinoma than normal lung tissue, and CAC1 siRNA reduced the proliferation of lung cancer A549 cells by decreasing cell activity and cell division in vitro. The proportion of cells treated with CAC1 siRNA increased in the G1 phase and decreased in the S and G2/M phase, indicative of G1 cell cycle arrest. Furthermore, the proportions of early/late apoptosis in lung cancer A549 cells were enhanced with CAC1 siRNA treatment. It was also found that activation of extracellular signal-regulated protein kinase (ERK) and p38 signaling pathways were involved in the proliferation of A549 cells. After CAC1 siRNA treatment, p-ERK1/2 levels decreased, and meanwhile p-p38 level increased, A549 cell proliferation increased when ERK1/2 signaling is activated by PMA. Our findings demonstrated that CAC1 promoted the proliferation of human lung cancer A549 cells with activation of ERK1/2 signaling pathways, suggesting a potential cure target for treatment of human lung cancer.

[221]

TÍTULO / TITLE: - Migration-stimulating factor (MSF) is over-expressed in non-small cell lung cancer and promotes cell migration and invasion in A549 cells over-expressing MSF.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Exp Cell Res. 2013 Jun 17. pii: S0014-4827(13)00222-X. doi: 10.1016/j.yexcr.2013.05.016.

●● Enlace al texto completo (gratis o de pago)

[1016/j.yexcr.2013.05.016](#)

AUTORES / AUTHORS: - Deng X; Ma Q; Zhang B; Jiang H; Zhang Z; Wang Y

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Tangdu Hospital, Forth Military Medical University; Department of Cardio-thoracic Surgery, Affiliated Hospital of Academy of Military Medical Sciences. Electronic address: dengxdfdoctor@hotmail.com.

RESUMEN / SUMMARY: - Migration-stimulating factor (MSF), an oncofetal truncated isoform of fibronectin, is a potent stimulator of cell invasion. However, its distribution and motogenic role in non-small cell lung cancer (NSCLC) have never been identified. In this study, real-time PCR and immunohistochemical staining (IHC) were performed to detect MSF mRNA and protein levels in tumor tissues and matched adjacent tumor-free tissues. Furthermore, to examine the effect of MSF on invasiveness, MSF was upregulated in A549 cells. The invasiveness and viability of A549 cells were then determined using a transwell migration assay and the 3-(4,5-Dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) viability assays, respectively. The expression level of MSF in NSCLC tissue was markedly higher than in matched adjacent tumor-free tissue. Additionally, the level of MSF protein expression in stage III and IV NSCLC samples was higher than in stage I and II NSCLC samples. More importantly, we also demonstrated that migration and invasion of A549 cells increased substantially after upregulating MSF although proliferation remained unchanged. Meanwhile, we found no correlation between increasing motility and invasiveness of MSF-overexpressing cells and expression levels and activities of matrix metalloproteinase (MMP)-2 and MMP-9. Our current study shows that MSF plays a role in migration and invasion of A549 cells and suggests that MSF may be a potential biomarker of NSCLC progression.

[222]

TÍTULO / TITLE: - DIXDC1 increases the invasion and migration ability of non-small-cell lung cancer cells via the PI3K-AKT/AP-1 pathway.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Carcinog. 2013 Jun 29. doi: 10.1002/mc.22059.

●● Enlace al texto completo (gratis o de pago) [1002/mc.22059](#)

AUTORES / AUTHORS: - Xu Z; Liu D; Fan C; Luan L; Zhang X; Wang E

INSTITUCIÓN / INSTITUTION: - Department of Pathology, First Affiliated Hospital and College of Basic Medical Sciences, China Medical University, Shenyang, China.

RESUMEN / SUMMARY: - DIX domain containing 1 (DIXDC1), is a human homolog of Ccd1, a recently identified DIX domain containing protein in zebrafish. DIXDC1 protein was detected in human colorectal adenocarcinoma tissues and was found to be correlated with a high cell proliferation index. We demonstrated DIXDC1 overexpression in 55% (92/167) of non-small cell lung cancer (NSCLC) cases, compared to adjacent noncancerous lung tissues ($P < 0.01$). Overexpression of DIXDC1 was associated with lymph node metastasis and more advanced TNM stage ($P < 0.001$ and $P = 0.001$, respectively). Kaplan-Meier survival curves and log-rank testing indicated that overexpression of DIXDC1 correlated with worse overall survival in NSCLC ($P = 0.031$). DIXDC1 was more abundant in seven NSCLC lines than the bronchial cell line HBE, and modulation of its expression regulated AP-1 activity; MMP2, MMP7, and MMP9 protein and mRNA; and invasion ability. Metalloproteinase induction was reversed by PI3K/AKT and AP-1 inhibition. These results suggest DIXDC1 is associated with stage and prognosis in NSCLC, and may promote invasion and migration through PI3K-AKT/AP-1-dependent activation of metalloproteinases. © 2013 Wiley Periodicals, Inc.

[223]

TÍTULO / TITLE: - Is ERCC1 a reliable prognostic protein biomarker in non-small-cell lung cancer?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Thorax. 2013 Jul 10. doi: 10.1136/thoraxjnl-2013-204086.

●● Enlace al texto completo (gratis o de pago) [1136/thoraxjnl-2013-204086](#)

AUTORES / AUTHORS: - Durrington HJ

[224]

TÍTULO / TITLE: - Let-7g and miR-21 expression in non-small cell lung cancer: Correlation with clinicopathological and molecular features.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Oncol. 2013 Sep;43(3):765-74. doi: 10.3892/ijo.2013.2003. Epub 2013 Jul 2.

●● Enlace al texto completo (gratis o de pago) [3892/ijo.2013.2003](#)

AUTORES / AUTHORS: - Capodanno A; Boldrini L; Proietti A; Ali G; Pelliccioni S; Niccoli C; D'Incecco A; Cappuzzo F; Chella A; Lucchi M; Mussi A; Fontanini G

INSTITUCIÓN / INSTITUTION: - Department of Surgical, Medical, Molecular Pathology and Critical Area, University of Pisa, I-56126 Pisa, Italy.

RESUMEN / SUMMARY: - MicroRNAs (miRNAs) play a key role in cancer pathogenesis and are involved in several human cancers, including non-small cell lung cancer (NSCLC). This study evaluated Let-7g and miR-21 expression by quantitative real-time PCR in 80 NSCLC patients and correlated the results with their main clinicopathological and molecular features. MiR-21 expression was significantly higher in NSCLC tissues compared to non-cancer lung tissues ($p < 0.0001$), while no significant changes in Let-7g expression were observed between the tumor and normal lung tissues. Target prediction analysis led to the identification of 26 miR-21 and 24 Let-7g putative target genes that play important roles in cancer pathogenesis and progression. No significant association was observed between the analysed miRNAs and the main clinicopathological or molecular characteristics of the NSCLC patients, although both miRNAs were downregulated in squamous cell carcinomas compared to adenocarcinomas. Noteworthy, we observed a significant association between low Let-7g expression and metastatic lymph nodes at diagnosis ($p = 0.046$), as well as between high miR-21 expression and K-Ras mutations ($p = 0.0003$). Survival analysis did not show any significant correlation between prognosis and the analysed miRNAs, although the patients with a high Let-7g and miR-21 expression showed a significantly lower short-term progression-free survival ($p = 0.01$ and $p = 0.0003$, respectively) and overall survival ($p = 0.023$ and $p = 0.0045$, respectively). In conclusion, we showed that Let-7g and miR-21 expression was deregulated in NSCLC and we demonstrated a strong relationship between miR-21 overexpression and K-Ras mutations. Our data indicate that Let-7g and miR-21 profiling combined with the determination of K-Ras mutational status may be considered a useful biomarker for a more effective molecular characterization and clinical management of NSCLC patients.

[225]

TÍTULO / TITLE: - Airway Basal Cells of Healthy Smokers Express an Embryonic Stem Cell Signature Relevant to Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Stem Cells. 2013 Jul 16. doi: 10.1002/stem.1459.

●● Enlace al texto completo (gratis o de pago) [1002/stem.1459](#)

AUTORES / AUTHORS: - Shaykhiev R; Wang R; Zwick RK; Hackett NR; Leung R; Moore MA; Sima CS; Chao I; Downey RJ; Strulovici-Barel Y; Salit J; Crystal RG

INSTITUCIÓN / INSTITUTION: - Department of Genetic Medicine, Weill Cornell Medical College, New York, New York. geneticmedicine@med.cornell.edu.

RESUMEN / SUMMARY: - Activation of the human embryonic stem cell (hESC)-signature genes has been observed in various epithelial cancers. In this study, we found that the hESC signature is selectively induced in the airway basal stem/progenitor cell population of healthy smokers (BC-S), with a pattern similar to that activated in all major types of human lung cancer. We further identified a

subset of 6 BC-S hESC genes, whose coherent overexpression in lung AdCa was associated with reduced lung function, poorer differentiation grade, more advanced tumor stage, remarkably shorter survival and higher frequency of TP53 mutations. BC-S shared with hESC and a considerable subset of lung carcinomas a common TP53 inactivation molecular pattern which strongly correlated with the BC-S hESC gene expression. These data provide transcriptome-based evidence that smoking-induced reprogramming of airway BC towards the hESC-like phenotype might represent a common early molecular event in the development of aggressive lung carcinomas in humans.

[226]

TÍTULO / TITLE: - The prognostic significance of aldehyde dehydrogenase 1^{a1} (ALDH1A1) and CD133 expression in early stage non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Thorax. 2013 Aug 7. doi: 10.1136/thoraxjnl-2012-203021.

●● Enlace al texto completo (gratis o de pago) [1136/thoraxjnl-2012-203021](#)

AUTORES / AUTHORS: - Alamgeer M; Ganju V; Szczepny A; Russell PA; Prodanovic Z; Kumar B; Wainer Z; Brown T; Schneider-Kolsky M; Conron M; Wright G; Watkins DN

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Monash Medical Centre, , East Bentleigh, Melbourne, Australia.

RESUMEN / SUMMARY: - BACKGROUND: Expression of aldehyde dehydrogenase 1^{a1} (ALDH1A1) and CD133 has been functionally associated with a stem cell phenotype in normal and malignant cells. The prevalence of such cells in solid tumours should therefore correlate with recurrence and/or metastasis following definitive surgical resection. The aim of this study was to evaluate the prognostic significance of ALDH1A1 and CD133 in surgically resected, early stage non-small cell lung cancer (NSCLC). METHODS: A retrospective analysis of ALDH1A1 and CD133 expression in 205 patients with pathologic stage I NSCLC was performed using immunohistochemistry. The association between the expression of both markers and survival was determined. RESULTS: We identified 62 relapses and 58 cancer-related deaths in 144 stage 1^a and 61 stage 1B patients, analysed at a median of 5-years follow-up. Overexpression of ALDH1A1 and CD133, detected in 68.7% and 50.7% of primary tumours, respectively, was an independent prognostic indicator for overall survival by multivariable Cox proportional hazard model ($p=0.017$ and 0.039 , respectively). Overexpression of ALDH1A1, but not of CD133, predicted poor recurrence-free survival ($p=0.025$). When categorised into three groups according to expression of ALDH1A1/CD133, patients with overexpression of both ALDH1A1 and CD133 belonged to the group with the shortest recurrence-free and overall survival ($p=0.015$ and 0.017 , respectively). CONCLUSIONS: Expression of ALDH1A1 and CD133, and coexpression of

ALDH1A1 and CD133, is strongly associated with poor survival in early-stage NSCLC following surgical resection. These data are consistent with the hypothesis that expression of stem cell markers correlates with recurrence as an indirect measure of self-renewal capacity.

[227]

TÍTULO / TITLE: - Sequential Treatment of Advanced-stage Lung Adenocarcinoma Harboring Wild-type EGFR Gene: Second-line Pemetrexed Followed by Third-line Erlotinib versus the Reverse Sequence.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Aug;33(8):3397-402.

AUTORES / AUTHORS: - Fiala O; Pesek M; Finek J; Benesova L; Bortlicek Z; Minarik M

INSTITUCIÓN / INSTITUTION: - MUDr., Department of Oncology and Radiotherapy, Medical School and Teaching Hospital in Pilsen, Charles University in Prague, alej Svobody 80, CZ-304 60 Pilsen, Czech Republic. fiala.o@centrum.cz.

RESUMEN / SUMMARY: - BACKGROUND: Pemetrexed and erlotinib represent novel agents for the treatment of non-small cell lung cancer (NSCLC). The role of sequential treatment in NSCLC has not been elucidated yet. We compared the efficacy of second-line pemetrexed followed by third-line erlotinib (P-E) to treatment with the reverse sequence (E-P). PATIENTS AND METHODS: We analyzed data of 57 patients with advanced-stage (IIIB/IV) lung adenocarcinoma harboring wild-type epidermal growth factor receptor (EGFR) gene; 31 patients were treated with P-E and 26 patients with the E-P sequence. RESULTS: The median progression-free survival (PFS) for patients treated with P-E was 3.6 months vs. 7.8 months for patients treated with E-P ($p=0.029$). The median overall survival (OS) for patients treated with P-E was 7.9 months vs. 26.3 months for patients treated with E-P ($p=0.006$). CONCLUSION: The results proved a significant improvement of both PFS and OS for patients treated with the E-P sequence as compared to the P-E sequence.

[228]

TÍTULO / TITLE: - Plasma sphingolipids and lung cancer: a population-based, nested case-control study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Epidemiol Biomarkers Prev. 2013 Aug;22(8):1374-82. doi: 10.1158/1055-9965.EPI-12-1424. Epub 2013 Jun 7.

●● Enlace al texto completo (gratis o de pago) [1158/1055-9965.EPI-12-1424](#)

AUTORES / AUTHORS: - Alberg AJ; Armeson K; Pierce JS; Bielawski J; Bielawska A; Visvanathan K; Hill EG; Ogretmen B

INSTITUCIÓN / INSTITUTION: - Authors' Affiliations: Hollings Cancer Center; Departments of Public Health Sciences and Biochemistry and Molecular Biology, Medical University of South Carolina, Charleston, South Carolina; and Department of Epidemiology, The Johns Hopkins University Bloomberg School of Public Health, Baltimore, Maryland.

RESUMEN / SUMMARY: - BACKGROUND: Sphingosine-1-phosphate (S1P) and ceramides are bioactive signaling sphingolipids that regulate pathways that are central to cancer pathogenesis. METHODS: A nested case-control study was implemented to test whether prediagnostic circulating concentrations of S1P and ceramides were associated with future lung cancer risk. In the community-based CLUE II cohort study in Washington County, Maryland, the study consisted of 100 incident lung cancer cases, each matched to two cancer-free controls on age, sex, race, and cigarette smoking status. Plasma stored at -70 degrees C at the beginning of follow-up in 1989 was assayed for sphingolipids using liquid chromatography/tandem mass spectrometry methodology (LC/MS-MS). RESULTS: Compared with controls, geometric mean plasma concentrations of S1P and total ceramides were 2.9% (P = 0.10) and 5.1% (P = 0.02), respectively, greater in lung cancer cases. For S1P, the ORs and 95% confidence intervals (CI) for lung cancer risk were 2.7 (1.2-5.9), 2.7 (1.1-6.4), and 1.9 (0.8-4.5) for the second, third, and highest fourth, respectively, compared with the lowest fourth (overall P = 0.006). Compared with those with total ceramide concentrations in the lowest fourth, the ORs (and 95% CI) for lung cancer risk were 1.6 (0.7-3.3), 1.5 (0.7-3.4), and 2.1 (0.9-4.7) for the second, third, and highest fourth, respectively (Ptrend = 0.01). CONCLUSIONS: Higher concentrations of S1P and total ceramide in plasma were associated with increased future risk of lung cancer. IMPACT: These novel findings suggest that perturbation of sphingolipid metabolism and S1P generation may either contribute to the etiology of lung cancer or be a marker of latent lung cancer. Cancer Epidemiol Biomarkers Prev; 22(8); 1374-82. ©2013 AACR.

[229]

TÍTULO / TITLE: - Individualized treatment of NSCLC: From research to clinical practice.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Neoplasma. 2013;60(5):538-45. doi: 10.4149/neo_2013_070.

●● Enlace al texto completo (gratis o de pago) [4149/neo_2013_070](#)

AUTORES / AUTHORS: - Wang Y; Liu ZD; Zhao LM; Du CX; Xi XM; Mi YL; Peng Y; Li WG; Cheng F; Zhang XR; Zheng YQ; Tang KK; Yang HY; Chu DT

RESUMEN / SUMMARY: - The exact clinical significance of EGFR mutation status in NSCLC at the time of initial diagnosis remains disputable. The gene expression module in NSCLC for chemotherapy outcome prediction needs to be developed. We analyzed 56 patients with NSCLC received chemotherapy either

with (n=20) or without EGFR-TKIs (n=36) between 2008 and 2012 in China. EGFR mutation test and gene expression profiling were performed in samples obtained before medication treatment by liquidchip platform. Significant association (P = 0.028) was seen between EGFR mutation status before first-line chemotherapy and EGFR-TKIs treatment outcomes, which even can be found from the status before second- or third-line treatment. A14-gene expression profiling had been studied. Patients with low mRNA expression of ERCC1 or TYMS preferred higher DCR to cisplatin and pemetrexed than those with high expression (P = 0.39 and P= 0.11). Highly co-expression of TUBB3 and STMN1 gene has associated with the resistance to antimicrotubule drugs (P = 0.03). Our data suggest the EGFR mutations status, even at the time of initial diagnosis, is predictive of outcomes of TKIs treatment after chemotherapy. The mRNA expression profiling investigated in this study has a predictive value in NSCLC treatment, but further research with expanded samples is still required. Keywords: non-small-cell lung cancer, EGFR mutation, TKIs, gene expression profiling, chemotherapy.

[230]

TÍTULO / TITLE: - Combination of mesothelin and CEA significantly improves the differentiation between malignant pleural mesothelioma, benign asbestos disease, and lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Jul;8(7):947-51. doi: 10.1097/JTO.0b013e31828f696b.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e31828f696b](#)

AUTORES / AUTHORS: - Muley T; Dienemann H; Herth FJ; Thomas M; Meister M; Schneider J

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RESUMEN / SUMMARY: - INTRODUCTION: Soluble mesothelin-related peptides (SMRP) have been reported as potential markers for the diagnosis of malignant pleural mesothelioma (MPM). We wondered, whether a combination with a carcinoembryonic antigen (CEA) test might improve the relatively low diagnostic yield of the SMRP test. METHODS: In a retrospective study, SMRP (mesothelin) and CEA serum concentrations were measured, using commercially available kits, in 93 previously untreated MPM patients, 75 patients with benign asbestos disease, and 139 patients suffering from lung cancer (LC). RESULTS: The differentiation between MPM, LC, and benign asbestos disease could be improved by applying the ratio mesothelin/CEA. Whereas CEA expression was found to be low in MPM, most LC patients had elevated CEA serum levels. The area under curve (AUC) of the receiver

operator characteristics curve for mesothelin alone was found to be only 0.708. For mesothelin/CEA the AUC of the receiver operator characteristics curve increased to 0.978. The sensitivity was 93% (69%) at 95% (100%) specificity for the differentiation between MPM and LC. Comparison of MPM and benign asbestos disease showed that the AUC was 0.887 and the sensitivity 56% (47%) at 95% (100%) specificity. In contrast, the AUC for the mesothelin test alone was only 0.715, and for the CEA test alone it was 0.16. An average increment in sensitivity of 38% (range, 16%-63%) could be achieved by the quotient mesothelin/CEA compared with the sensitivity of mesothelin alone. CONCLUSION: The diagnostic yield of the mesothelin test can be considerably improved when combined with a CEA test with regard to the differential diagnosis between MPM and LC and between MPM and benign asbestos disease.

[231]

TÍTULO / TITLE: - Solid tumor size on high-resolution computed tomography and maximum standardized uptake on positron emission tomography for new clinical T descriptors with T1 lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Oncol. 2013 Jun 20.

●● Enlace al texto completo (gratis o de pago) [1093/annonc/mdt230](#)

AUTORES / AUTHORS: - Tsutani Y; Miyata Y; Nakayama H; Okumura S; Adachi S; Yoshimura M; Okada M

INSTITUCIÓN / INSTITUTION: - Department of Surgical Oncology, Hiroshima University, Hiroshima.

RESUMEN / SUMMARY: - BACKGROUND: To better describe clinical T descriptors using solid tumor size (the maximum dimension of the solid component of the tumor) on high-resolution computed tomography (HRCT) and maximum standardized uptake value (SUVmax) on F-18-fluorodeoxyglucose positron emission tomography/CT (FDG-PET/CT). PATIENTS AND METHODS: We examined 610 consecutive patients with clinical stage IA lung adenocarcinoma who underwent complete resection. Recurrence-free survival (RFS) was assessed on the basis of whole tumor size (maximum dimension of the tumor), solid tumor size, or a combination of solid tumor size and SUVmax. RESULTS: RFS based on whole tumor size was not significantly different between patients with tumors measuring ≤ 2 cm and 2-3 cm ($P = 0.089$), whereas RFS based on solid tumor size was significantly different ($P < 0.0001$). We divided patients into four groups on the basis of solid tumor size and SUVmax: group 1: solid tumor size ≤ 2 cm, SUVmax ≤ 1.8 ; group 2: solid tumor size ≤ 2 cm, SUVmax > 1.8 ; group 3: solid tumor size 2-3 cm, SUVmax ≤ 3.6 ; and group 4: solid tumor size 2-3 cm, SUVmax > 3.6 . Groups 2 and 3 were combined because they showed similar RFS each other. RFS was significantly different among these groups: group 1 versus groups 2 + 3, $P <$

0.0001; groups 2 + 3 versus group 4, P = 0.019. CONCLUSIONS: Both solid tumor size on HRCT and SUVmax on FDG-PET/CT reflect prognosis well in patients with clinical stage IA lung adenocarcinoma and may support new clinical T descriptors.

[232]

TÍTULO / TITLE: - Vacuolar protein sorting 4B, an ATPase protein positively regulates the progression of NSCLC via promoting cell division.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Cell Biochem. 2013 Sep;381(1-2):163-71. doi: 10.1007/s11010-013-1699-2. Epub 2013 Jun 5.

●● Enlace al texto completo (gratis o de pago) [1007/s11010-013-1699-](#)

[2](#)

AUTORES / AUTHORS: - Liu Y; Lv L; Xue Q; Wan C; Ni T; Chen B; Liu Y; Zhou Y; Ni R; Mao G

INSTITUCIÓN / INSTITUTION: - Department of Pathology, Affiliated Hospital of Nantong University, 19 Qixiu Road, Nantong, 226001, Jiangsu, China.

RESUMEN / SUMMARY: - Vacuolar protein sorting 4B (VPS4B), a member of ATPase family proteins, plays a crucial role in lysosome-dependent degradation. Recently, it was found that VPS4B could negatively regulate breast cancer progression through promoting lysosomal-dependent degradation for EGFR. Nevertheless, other studies found that VPS4B was also essential for cell division and mitosis through insuring the maintenance of centrosome and spindle assembly. Thus, the role of VPS4B in cancer biology remains under debate. In this study, we analyzed the clinical significance of VPS4B in NSCLC. The expression of VPS4B was evaluated by Western blot in 8 paired fresh NSCLC tissues and immunohistochemistry on 105 paraffin-embedded slices. VPS4B was highly expressed in NSCLC and significantly associated with NSCLCs tumor size, histological differentiation, clinical stage and Ki-67. Besides, high VPS4B expression was an independent prognostic factor for NSCLC patients' poor survival. To determine whether VPS4B could regulate the proliferation of NSCLC cells, we knocked down the expression of VPS4B and analyzed the proliferation of A549 NSCLC cells using Western blot, CCK8 and flow cytometry assays, which together indicated that loss of VPS4B could inhibit cell cycle progress. These data suggest that VPS4B may promote the progression of NSCLC and be a biotarget for NSCLCs therapy.

[233]

TÍTULO / TITLE: - Juvenile respiratory papillomatosis: risk factors for severity.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Med Virol. 2013 Aug;85(8):1447-58. doi: 10.1002/jmv.23615.

●● Enlace al texto completo (gratis o de pago) [1002/jmv.23615](https://doi.org/10.1002/jmv.23615)

AUTORES / AUTHORS: - Rodier C; Lapointe A; Coutlee F; Mayrand MH; Dal Soglio D; Roger M; Trottier H

INSTITUCIÓN / INSTITUTION: - Department of Social and Preventive Medicine, Université de Montréal, Montréal, Québec, Canada.

RESUMEN / SUMMARY: - Juvenile recurrent respiratory papillomatosis is caused mainly by human papillomavirus genotypes 6 or 11, acquired at birth or during pregnancy from an infected mother. Recurrent respiratory papillomatosis is characterized by recurring warts growing most commonly in the larynx. Multiple surgical procedures and the risk of airway obstruction contribute to the devastating impact of this disease. Some children will go into remission after a few surgeries whereas others will require repeated interventions over several years. Further understanding of the risk factors associated with severity may contribute to tailored treatments. A retrospective study of cases diagnosed between January 1995 and December 2008 was conducted to study determinants of severe forms of juvenile recurrent respiratory papillomatosis. Demographic and clinical variables were abstracted from children's medical charts and mothers' delivery charts. Viral factors (HPV genotyping and viral load) were studied from archived biopsies. Specific HLA class II alleles and killer-cell immunoglobulin-like receptors genes were tested from saliva samples. Logistic regression was performed to identify risk factors for severity. Overall, 31 pediatric cases of recurrent respiratory papillomatosis were identified. The only significant factor associated with severe forms of recurrent respiratory papillomatosis was the maternal history of condylomas during pregnancy (OR: 12.05 [P=0.05]). The analysis failed to identify risk factors that could be used clinically to identify recurrent respiratory papillomatosis cases likely to take a severe course. Although too early to determine, vaccination against the HPV types involved most commonly in recurrent respiratory papillomatosis may provide the best hope to prevent severe forms of this disease.

[234]

TÍTULO / TITLE: - Association of IL-8 gene polymorphisms with non small cell lung cancer in Tunisia: A case control study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Hum Immunol. 2013 Jul 2. pii: S0198-8859(13)00197-3. doi: 10.1016/j.humimm.2013.06.033.

●● Enlace al texto completo (gratis o de pago)

[1016/j.humimm.2013.06.033](https://doi.org/10.1016/j.humimm.2013.06.033)

AUTORES / AUTHORS: - Rrafrafi A; Chahed B; Kaabachi S; Kaabachi W; Maalmi H; Hamzaoui K; Sassi FH

INSTITUCIÓN / INSTITUTION: - Homeostasis and Cell Dysfunction Unit Research 99/UR/08-40, Faculty of Medicine, University of Tunis El Manar II, Tunis 1007, Tunisia. Electronic address: rafahlem@yahoo.fr.

RESUMEN / SUMMARY: - Interleukin 8 (IL-8), is a proinflammatory chemokine, has been reported to have angiogenic activity and to be responsible for tumor-associated angiogenesis in several cancers. In this study, we aimed to study the (IL-8) gene polymorphism in relation with risk development of non small cell lung cancer in Tunisian patient. Two single nucleotide polymorphisms (-251T/A [rs4073], +781C/T [rs2227306]) of the IL-8 gene were screened in 170 patients with NSCLC and 225 healthy controls by PCR-RFLP. Significant association for the IL-8 -251T/T genotypes (P=0.004) and an increased significant frequency of IL-8 -251T allele were noted in the patient's group (P=0.0007). Clinical analysis indicated a borderline positive association of IL-8 -251T allele among adenocarcinoma patients (P=0.003). Our study indicated that IL-8 -251T allele was highly associated with large tumor size and high grade stage of NSCLC. Moreover, a significantly increased risk of NSCLC was associated with IL-8 +781C allele in patients with large tumor size (T3 and T4) (P=0.004). IL-8 mRNA expression was found highly expressed in NSCLC patients compared to healthy controls. The same higher level was even found in patients carrying IL-8 -251T/T genotype. Our results indicated that the IL-8 promoter polymorphism is associated with NSCLC risk.

[235]

TÍTULO / TITLE: - Phosphoproteomics of Collagen Receptor Networks Reveals SHP-2 Phosphorylation Downstream of Wildtype DDR2 and its Lung Cancer Mutants.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biochem J. 2013 Jul 4.

●● Enlace al texto completo (gratis o de pago) [1042/BJ20121750](#)

AUTORES / AUTHORS: - Iwai LK; Payne LS; Luczynski MT; Chang F; Xu H; Clinton RW; Paul A; Esposito EA; Gridley S; Leitinger B; Naegle KM; Huang PH

RESUMEN / SUMMARY: - Collagen is an important extracellular matrix component that directs many fundamental cellular processes including differentiation, proliferation and motility. The signalling networks driving these processes are propagated by collagen receptors such as the beta1 integrins and the Discoidin Domain Receptors (DDR). To gain an insight into the molecular mechanisms of collagen receptor signalling, we have performed a quantitative analysis of the phosphorylation networks downstream of collagen activation of integrins and DDR2. Temporal analysis over seven time points identified 424 phosphorylated proteins. Distinct DDR2 tyrosine phosphorylation sites displayed unique temporal activation profiles in agreement with in vitro kinase data. Multiple clustering analysis of the phosphoproteomic data revealed several DDR2 candidate downstream signalling nodes, including SHP-2, NCK1, LYN, SHIP-2, PIK3C2A and PLCL2. Biochemical validation showed that SHP-2 tyrosine phosphorylation is dependent on DDR2 kinase activity. Targeted proteomic profiling of a panel of squamous cell lung cancer (SCC) DDR2 mutants

demonstrated that SHP-2 is tyrosine phosphorylated by the L63V and G505S mutants. In contrast, the I638F kinase domain mutant exhibited diminished DDR2 and SHP-2 tyrosine phosphorylation levels which have an inverse relationship with clonogenic potential. Taken together, these results indicate that SHP-2 is a key signalling node downstream of the DDR2 receptor which may have therapeutic implications in a subset of DDR2 mutations recently uncovered in genome-wide lung SCC sequencing screens.

[236]

TÍTULO / TITLE: - Association between the XRCC3 C241T polymorphism and lung cancer risk in the Asian population.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumour Biol. 2013 Jun 8.

- [Enlace al texto completo \(gratis o de pago\) 1007/s13277-013-0806-](#)

Z

AUTORES / AUTHORS: - Tian X; Tian Y; Ma P; Sui C; Meng F; Li Y; Fu L; Jiang T; Wang Y; Jiang Y

INSTITUCIÓN / INSTITUTION: - Molecular Oncology Department of Cancer Research Institution, The First Hospital of China Medical University, Shenyang, 110001, China.

RESUMEN / SUMMARY: - X-ray repair cross-complementing group 3 (XRCC3) plays a vital role in maintaining the stability of genome by homologous recombination repair for DNA double-strand breaks. The genetic polymorphism of XRCC3 C241T has been implicated in lung cancer risk, but the findings across published studies in Asians are inconsistent and inconclusive. To estimate the precise association of XRCC3 C241T polymorphism with lung cancer risk, a meta-analysis of all currently available studies in Asians was performed. A comprehensive search of the PubMed, Embase, Web of Science, and China National Knowledge Infrastructure databases was conducted for eligible studies based on the inclusion criteria. The pooled odds ratios (ORs) with corresponding 95 % confidence intervals (CIs) were calculated to assess the association. Besides, subgroup analysis and sensitivity analysis were also performed for further estimation. Seven available studies with a total of 7,398 subjects were finally included into this meta-analysis. The overall ORs indicated that the XRCC3 C241T polymorphism was not associated with a lung cancer risk among Asians in all genetic contrast modes (ORT allele vs. C allele = 1.08, 95 % CI 0.95-1.24, P OR = 0.252; ORTT vs. CC = 1.30, 95 % CI 0.69-2.45, P OR = 0.426; ORCT vs. CC = 1.07, 95 % CI 0.93-1.24, P OR = 0.363; ORTT + CT vs. CC = 1.08, 95 % CI 0.94-1.24, P OR = 0.300; ORTT vs. CC + CT = 1.29, 95 % CI 0.68-2.43, P OR = 0.439). We failed to identify significant association between the XRCC3 C241T polymorphism and risk of lung cancer in Chinese and population-based studies. Interestingly, the pooled ORs in hospital-based studies indicated that the XRCC3 C241T variant carriers were

more susceptible to lung cancer (ORT allele vs. C allele = 1.27, 95 % CI 1.04-1.56, P OR = 0.019; ORCT vs. CC = 1.26, 95 % CI 1.01-1.57, P OR = 0.045; ORTT + CT vs. CC = 1.28, 95 % CI 1.03-1.59, P OR = 0.027). Sensitivity analysis confirmed the stability and liability of all results. This meta-analysis suggests that the XRCC3 C241T polymorphism may not exert a risk effect on the lung cancer risk in Asians, although a statistically significant association was observed among the hospital-based studies. Thus, the precise relationship between the XRCC3 C241T variant and lung cancer risk needs further confirmation in future studies with large available data.

[237]

TÍTULO / TITLE: - Polymorphism rs7214723 in CAMKK1 and lung cancer risk in Chinese population.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumour Biol. 2013 Jun 5.

●● Enlace al texto completo (gratis o de pago) [1007/s13277-013-0883-](http://1007/s13277-013-0883-z)

[Z](#)

AUTORES / AUTHORS: - Zhang YH; Xu Q; Zhao Z; Wu J; Liu WX; Wang H; Jin L; Wang JC

INSTITUCIÓN / INSTITUTION: - Department of Oncology, Shanghai Tenth People's Hospital, Tongji University, Shanghai, China.

RESUMEN / SUMMARY: - Polymorphism rs7214723 was reported to be associated with lung cancer risk in UK Caucasians and caused the E375G substitution of CAMKK1 which plays important role in the calcium/calmodulin-dependent kinase cascade. To analyze rs7214723 in CAMKK1 and lung cancer risk in a Chinese population, SNPscan™ was used to genotype polymorphism rs7214723 in 961 lung cancer cases and 999 control subjects. The frequencies of the TT, TC, and CC genotypes of CAMKK1 rs7214723 were 43.3, 42.6, and 14.0 % in controls, and 41.1, 48.0, and 10.9 % in cases, respectively (P = 0.025). Compared with the CC genotype, TC genotype was associated with increased risk of lung cancer (OR 1.500, 95 % CI 1.112-2.022) after adjustment for age, gender, smoking status, and family history. The T allele of rs7214723 is the risk allele for lung carcinogenesis in dominant model (OR 1.354, 95 % CI 1.020-1.797). In stratified analysis, the risk effect of the TC genotype of rs7214723 was more evident in subgroups of those who had never been smokers (OR 1.556, 95 % CI 1.074-2.254). For the population without a family history of cancer, both the TT (OR 1.488, 95 % CI 1.050-2.109) and TC (OR 1.668, 95 % CI 1.180-2.357) carrier had an increased lung cancer risk. E375 is located in the kinase domain of CAMKK1, and E375G may change the electrical charge at the surface and decrease the kinase activity. Polymorphism rs7214723 in CAMKK1 might contribute to the risk of lung cancer in Chinese populations. The T allele is a risk allele in lung carcinogenesis.

[238]

TÍTULO / TITLE: - External auditory canal mass as the first manifestation of a bronchogenic carcinoma: report of a rare case.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Otol Rhinol Laryngol. 2013 Jun;122(6):378-81.

AUTORES / AUTHORS: - Vasileiadis I; Kapetanakis S; Vasileiadis D; Petousis A; Karatzas T

INSTITUCIÓN / INSTITUTION: - Department of Otolaryngology-Head and Neck Surgery, Venizeleio-Pananeio General Hospital, Heraklion, Greece.

RESUMEN / SUMMARY: - **OBJECTIVES:** Metastatic tumors in the external auditory canal (EAC) are exceptionally rare. These metastases almost always occur in the latter stages of the disease process. Ten cases of metastatic tumors of the EAC have been reported in the literature. We report the first case of a metastatic bronchogenic adenocarcinoma that presented initially as an EAC mass. **METHODS:** We present a case report and a literature review. **RESULTS:** Although bronchogenic adenocarcinoma not uncommonly metastasizes to the temporal bone, metastasis to the EAC is extremely rare. We report the case of a 62-year-old woman who presented with a 6-week history of swelling in her right EAC and sudden onset of hearing loss. Physical examination revealed a small, polypoid, friable mass originating from the superior-posterior wall of the right EAC. Incision biopsy was performed, and the histopathologic examination of specimens revealed a moderately to poorly differentiated adenocarcinoma compatible with a bronchogenic origin. **CONCLUSIONS:** A patient with an aural mass presents a diagnostic dilemma. Metastatic tumors in the EAC are extremely rare, but they should be included in the differential diagnosis of a mass in this location.

[239]

- CASTELLANO -

TÍTULO / TITLE: Tratamiento del carcinoma broncogenico de celula no pequena en estadios precoces.

TÍTULO / TITLE: - Treatment of non-small cell lung carcinoma in early stages.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cir Esp. 2013 Jul 3. pii: S0009-739X(13)00099-7. doi: 10.1016/j.ciresp.2013.01.007.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1016/j.ciresp.2013.01.007](#)

AUTORES / AUTHORS: - Meneses JC; Avila Martinez RJ; Ponce S; Zuluaga M; Bartolome A; Gamez P

INSTITUCIÓN / INSTITUTION: - Servicio de Cirugía Torácica, Hospital Universitario 12 de Octubre de Madrid, Madrid, España. Electronic address: jcmenesesp@gmail.com.

RESUMEN / SUMMARY: - Treatment of lung carcinoma is multidisciplinary. There are different therapeutic strategies available, although surgery shows the best results in those patients with lung carcinoma in early stages. Other options such as stereotactic radiation therapy are relegated to patients with small tumors and poor cardiopulmonary reserve or to those who reject surgery. Adjuvant chemotherapy is not justified in patients with stage I of the disease and so double adjuvant chemotherapy should be considered. This adjuvant chemotherapy should be based on cisplatin after surgery in those patients with stages II and IIIA.

[240]

TÍTULO / TITLE: - Identification of a long non-coding RNA gene, growth hormone secretagogue receptor opposite strand, which stimulates cell migration in non-small cell lung cancer cell lines.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Oncol. 2013 Aug;43(2):566-74. doi: 10.3892/ijo.2013.1969. Epub 2013 May 30.

●● [Enlace al texto completo \(gratis o de pago\) 3892/ijo.2013.1969](#)

AUTORES / AUTHORS: - Whiteside EJ; Seim I; Pauli JP; O'Keeffe AJ; Thomas PB; Carter SL; Walpole CM; Fung JN; Josh P; Herington AC; Chopin LK

INSTITUCIÓN / INSTITUTION: - Ghrelin Research Group, Institute of Health and Biomedical Innovation, Queensland University of Technology, Brisbane, Queensland, Australia.

RESUMEN / SUMMARY: - The molecular mechanisms involved in non-small cell lung cancer tumorigenesis are largely unknown; however, recent studies have suggested that long non-coding RNAs (lncRNAs) are likely to play a role. In this study, we used public databases to identify an mRNA-like, candidate long non-coding RNA, GHSROS (GHSR opposite strand), transcribed from the antisense strand of the ghrelin receptor gene, growth hormone secretagogue receptor (GHSR). Quantitative real-time RT-PCR revealed higher expression of GHSROS in lung cancer tissue compared to adjacent, non-tumour lung tissue. In common with many long non-coding RNAs, GHSROS is 5' capped and 3' polyadenylated (mRNA-like), lacks an extensive open reading frame and harbours a transposable element. Engineered overexpression of GHSROS stimulated cell migration in the A549 and NCI-H1299 non-small cell lung cancer cell lines, but suppressed cell migration in the Beas-2B normal lung-derived bronchoepithelial cell line. This suggests that GHSROS function may be dependent on the oncogenic context. The identification of GHSROS, which is expressed in lung cancer and stimulates cell migration in lung cancer cell lines,

contributes to the growing number of non-coding RNAs that play a role in the regulation of tumorigenesis and metastatic cancer progression.

[241]

TÍTULO / TITLE: - CD59 is overexpressed in human lung cancer and regulates apoptosis of human lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Oncol. 2013 Sep;43(3):850-8. doi: 10.3892/ijo.2013.2007. Epub 2013 Jul 5.

●● Enlace al texto completo (gratis o de pago) [3892/ijo.2013.2007](#)

AUTORES / AUTHORS: - Li B; Lin H; Fan J; Lan J; Zhong Y; Yang Y; Li H; Wang Z

INSTITUCIÓN / INSTITUTION: - Renmin Hospital of Wuhan University, Wuhan 430060, P.R. China.

RESUMEN / SUMMARY: - CD59, belonging to membrane complement regulatory proteins (mCRPs), inhibits the cytolytic activity of complement and is overexpressed in many types of solid cancers. The aim of the present study was to detect the expression of CD59 in non-small cell lung cancer (NSCLC) and to investigate the relationship between decreased CD59 expression and tumorigenesis of NSCLC by transfecting recombinant retrovirus encoding shRNA targeting human CD59 into the human NSCLC cell line NCI-H157. CD59 expression in NSCLC was detected by immunocytochemistry (IHC). In the human NSCLC cell line NCI-H157, CD59 mRNA and protein expression suppressed with lentivirus-mediated RNAi was confirmed by using RT-PCR and western blotting, respectively. The proliferation and apoptosis of NCI-H157 cells was measured by using MTT assay and FACS. The resistance to complement cracking ability was detected by LDH assay. Caspase-3 expression in cells was assessed by IHC. Bcl-2 and Fas protein was determined by western blotting both in vitro and in vivo. CD59 is overexpressed in human NSCLC cancer. In NCI-H157 cells, lentivirus-mediated RNAi significantly reduced both CD59 mRNA and protein expression, which resulted in suppressing cell proliferation and increasing cell apoptosis. When incubated with fresh normal human serum (8%, v/v) for 1 h at 37 C, the cell viability was decreased and cell apoptosis was increased in siCD59-infected NCI-H157 cells compared to siCD59-C-infected cells. Reduced CD59 expression led to increased expression of caspase-3 and Fas and decreased expression of Bcl-2. Furthermore, the nude mouse tumor graft weight was significantly decreased and survival rate was significantly increased in the siCD59 group. CD59 is overexpressed in human NSCLC. CD59 silencing in NSCLC cancer cells via retrovirus-mediated RNAi can enhance complement-mediated cell apoptosis, inhibiting the growth of NSCLC. CD59 may serve as a potential target for gene therapy in NSCLC.

[242]

TÍTULO / TITLE: - Stereotactic body radiation therapy for lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chest. 2013 Jun;143(6):1784-90. doi: 10.1378/chest.12-2580.

●● Enlace al texto completo (gratis o de pago) [1378/chest.12-2580](#)

AUTORES / AUTHORS: - Simone CB 2nd; Wildt B; Haas AR; Pope G; Rengan R; Hahn SM

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Hospital of the University of Pennsylvania, Philadelphia, PA 19104, USA.

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RESUMEN / SUMMARY: - Lung cancer remains the leading cause of death worldwide. Because many patients with non-small cell lung cancer are elderly and have multiple comorbid conditions, many with potentially curable disease are unfit to undergo definitive surgical resection. Stereotactic body radiation therapy (SBRT) is increasingly being used to treat patients with medically inoperable stage I non-small cell lung cancer. SBRT combines reproducible and accurate anatomic targeting with the delivery of a very high dose per fraction of radiation to a target. Planning and delivery of SBRT is a coordinated effort between the radiation oncology team and consulting services. Clinical outcomes, toxicity profiles, treatment delivery, and indications for SBRT are reviewed. Services currently billed during planning and treatment of SBRT are detailed. This article introduces to consulting specialists and subspecialists a new Current Procedural Terminology code that has been proposed to more accurately reflect work performed during SBRT by these consulting providers. This code is described, and its implications for patient care are discussed.

[243]

TÍTULO / TITLE: - Treatment of multiple primary lung cancers using stereotactic radiotherapy, either with or without surgery.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Radiother Oncol. 2013 Jun 6. pii: S0167-8140(13)00229-6. doi: 10.1016/j.radonc.2013.04.026.

●● Enlace al texto completo (gratis o de pago)

[1016/j.radonc.2013.04.026](#)

AUTORES / AUTHORS: - Griffioen GH; Lagerwaard FJ; Haasbeek CJ; Smit EF; Slotman BJ; Senan S

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, VU University Medical Center, Amsterdam, The Netherlands.

RESUMEN / SUMMARY: - BACKGROUND AND PURPOSE: Multiple primary lung cancers (MPLC) are not an uncommon presentation. Current guidelines recommend a curative approach when early-stage MPLC is diagnosed as favorable outcomes have been reported after surgery. We studied outcomes

following stereotactic ablative radiotherapy (SABR). MATERIALS AND METHODS: Following review of imaging and pathology at a multi-disciplinary tumor board, a total of 62 patients were referred for SABR with a diagnosis of synchronous MPLC. SABR was performed for both lesions in 56 patients, while another 6 underwent SABR for only one lesion and surgery for the other lesion. A total dose of 54-60Gy was delivered in 3-8 fractions. RESULTS: Median follow-up was 44 months (95% CI: 29-59). Overall survival of all patients was 31 months (95% CI: 17-44), with an actuarial 2-year survival of 56%. No grade 4 or 5 post-SABR toxicity was observed. Local control rates calculated per lesion, were 84% at 2years, and 78% at 3years. The two-year actuarial regional control rate was 87%. CONCLUSIONS: SABR for synchronous MPLC achieves a lesion control rate of 84% after 2years, with limited toxicity. SABR should be considered when patients with lung cancer present with a synchronous second lesion and no nodal involvement.

[244]

TÍTULO / TITLE: - Clinical significance of E-cadherin, beta-catenin, vimentin and S100A4 expression in completely resected squamous cell lung carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Pathol. 2013 Jul 13.

- [Enlace al texto completo \(gratis o de pago\) 1136/jclinpath-2013-201467](#)

AUTORES / AUTHORS: - Zhang H; Liu J; Yue D; Gao L; Wang D; Zhang H; Wang C

INSTITUCIÓN / INSTITUTION: - Department of Lung Cancer, Cancer Institute and Hospital of Tianjin Medical University, Tianjin, China.

RESUMEN / SUMMARY: - OBJECTIVE: The aim of this study was to evaluate the prognostic value of E-cadherin, beta-catenin, vimentin and S100A4 expression in a cohort of squamous cell lung carcinoma (SqCC) patients. METHODS: Tumours from 204 patients with surgically resected SqCC were used for the immunohistochemical analyses of E-cadherin, beta-catenin, vimentin and S100A4 expression. Correlations between the expression of these markers and clinicopathological parameters were analysed using the chi2 test. The prognostic value of these markers was evaluated using univariate Kaplan-Meier survival analyses and multivariate Cox proportional hazards model analyses. RESULTS: Significant associations between E-cadherin expression and T stage ($p=0.040$), histological differentiation ($p=0.005$), lymph node metastasis ($p<0.001$), and recurrence ($p<0.001$) were identified. Decreased beta-catenin expression was significantly correlated with T stage ($p=0.003$) and lymph node metastasis ($p=0.010$). Vimentin expression was associated with histological differentiation ($p=0.017$) and lymph node metastasis ($p=0.001$). Moreover, significant correlations were observed between S100A4 expression and lymph node metastasis ($p=0.020$) and recurrence ($p<0.001$). In the univariate

analyses, high E-cadherin expression was a positive indicator for overall survival (OS) ($p < 0.001$) and disease-free survival (DFS) ($p < 0.001$), whereas high S100A4 or vimentin expression were negative indicators for OS ($p < 0.001$ and $p = 0.010$, respectively) and DFS ($p < 0.001$ and $p = 0.006$, respectively). In the multivariate analyses, E-cadherin and S100A4 expression were independent prognostic factors for OS (HR 0.697, 95% CI 0.524 to 0.926, $p = 0.013$, and HR 1.508, 95% CI 1.122 to 2.027, $p = 0.007$, respectively) and DFS (HR 0.634, 95% CI 0.471 to 0.852, $p = 0.003$, and HR 1.490, 95% CI 1.101 to 2.015, $p = 0.010$, respectively). CONCLUSIONS: Effective analysis of E-cadherin and S100A4 expression may allow for the identification of patients who are at a high risk of recurrence and poor prognosis in SqCC.

[245]

TÍTULO / TITLE: - Asbestos and lung cancer: what we know.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Respir Crit Care Med. 2013 Jul 1;188(1):8-9. doi: 10.1164/rccm.201305-0885ED.

●● Enlace al texto completo (gratis o de pago) [1164/rccm.201305-0885ED](#)

AUTORES / AUTHORS: - Balmes JR

INSTITUCIÓN / INSTITUTION: - 1 Human Exposure Laboratory UCSF Lung Biology Center San Francisco, California.

[246]

TÍTULO / TITLE: - Update in lung cancer and mesothelioma 2012.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Respir Crit Care Med. 2013 Jul 15;188(2):157-66. doi: 10.1164/rccm.201304-0716UP.

●● Enlace al texto completo (gratis o de pago) [1164/rccm.201304-0716UP](#)

AUTORES / AUTHORS: - Powell CA; Halmos B; Nana-Sinkam SP

INSTITUCIÓN / INSTITUTION: - 1 Division of Pulmonary, Critical Care, and Sleep Medicine, Icahn School of Medicine at Mount Sinai, New York, New York.

[247]

TÍTULO / TITLE: - DW MRI at 3.0-T versus FDG PET/CT for detection of malignant pulmonary tumors.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Cancer. 2013 Jul 24. doi: 10.1002/ijc.28394.

●● Enlace al texto completo (gratis o de pago) [1002/ijc.28394](#)

AUTORES / AUTHORS: - Zhang J; Cui L; Tang X; Ren X; Shi J; Yang H; Zhang Y; Li Z; Wu C; Jian W; Zhao F; Ti X; Yin H

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Xijing Hospital, Fourth Military Medical University, Xi'an, China.

RESUMEN / SUMMARY: - Emerging evidence suggests that diffusion-weighted magnetic resonance imaging (DW MRI) could be useful for tumor detection with N and M staging of lung cancer in place of fluorine 18 fluorodeoxyglucose positron emission tomography/computed tomography (FDG PET/CT). DW MRI at 3.0-T and FDG PET/CT were performed before therapy in 113 patients with pulmonary nodules. Mean apparent diffusion coefficient (ADC), maximal standardized uptake value (SUVmax), and Ki-67 scores were assessed. Quantitatively, specificity and accuracy of ADC (91.7%, 92.9%) were significantly higher than those of SUVmax (66.7%, 77.9%, $p < 0.05$), although sensitivity was not significantly different between them (93.5%, 83.1%, $p > 0.05$). Qualitatively, sensitivity, specificity, and accuracy of DW MRI (96.1%, 83.3%, 92.0%) were also not significantly different from that of FDG PET/CT (88.3%, 83.3%, 86.7%, $p > 0.05$). Significant negative correlation was found between Ki-67 score and ADC ($r = -0.66$, $p < 0.05$), ADC and SUVmax ($r = -0.37$, $p < 0.05$), but not between Ki-67 score and SUVmax ($r = -0.11$, $p > 0.05$). In conclusion, quantitative and qualitative assessments for detection of malignant pulmonary tumors with DW MRI at 3.0-T are superior to those with FDG PET/CT. Furthermore, ADC could predict the malignancy of lung cancer. © 2013 Wiley Periodicals, Inc.

[248]

TÍTULO / TITLE: - Replacement of a Quinone by a 5-O-Acetylhydroquinone Abolishes the Accidental Necrosis Inducing Effect while Preserving the Apoptosis-Inducing Effect of Renieramycin M on Lung Cancer Cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Nat Prod. 2013 Jul 22.

●● Enlace al texto completo (gratis o de pago) [1021/np400277m](#)

AUTORES / AUTHORS: - Cheun-Arom T; Chanvorachote P; Sirimangkalakitti N; Chuanasa T; Saito N; Abe I; Suwanborirux K

INSTITUCIÓN / INSTITUTION: - Center of Bioactive Natural Products from Marine Organisms and Endophytic Fungi, Department of Pharmacognosy and Pharmaceutical Botany, Chulalongkorn University, Bangkok 10330, Thailand.

RESUMEN / SUMMARY: - Renieramycin M (1), a bistetrahydroisoquinolinequinone alkaloid isolated from the marine sponge *Xestospongia* sp., has been reported to possess promising anticancer effects. However, its accidental necrosis inducing effect has limited further development due to concerns of unwanted toxicity. The presence of two quinone moieties in its structure was demonstrated to induce accidental necrosis and increase reactive oxygen species (ROS) levels. Therefore, one quinone of 1 was modified to produce the

5-O-acetylated hydroquinone derivative (2), and 2 dramatically reduced the accidental necrosis inducing effect while preserving the apoptosis-inducing effect of parent 1 on lung cancer H23 cells. Addition of the antioxidant N-acetylcysteine suppressed the accidental necrosis mediated by 1, suggesting that its accidental necrosis inducing effect was ROS-dependent. The fluorescent probe dihydroethidium revealed that the accidental necrosis mediated by 1 was due to its ability to generate intracellular superoxide anions. Interestingly, the remaining quinone in 2 was required for its cytotoxicity, as the 5,8,15,18-O-tetraacetylated bishydroquinone derivative (3) exhibited weak cytotoxicity compared to 1 and 2. The present study demonstrates a simple way to eliminate the undesired accidental necrosis inducing effect of substances that may be developed as improved anticancer drug candidates.

[249]

TÍTULO / TITLE: - Ratiometric and absolute water-soluble fluorescent tripodal zinc sensor and its application in killing human lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - *Analyst*. 2013 Jul 15;138(16):4593-8. doi: 10.1039/c3an00067b.

●● Enlace al texto completo (gratis o de pago) [1039/c3an00067b](#)

AUTORES / AUTHORS: - Goswami S; Das AK; Aich K; Manna A; Maity S; Khanra K; Bhattacharyya N

INSTITUCIÓN / INSTITUTION: - Department of Chemistry, Bengal Engineering and Science University, Shibpur, Howrah, 711103, West Bengal, India.

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RESUMEN / SUMMARY: - A new "naked-eye" and ratiometric fluorescent zinc sensor () of carboxamidoquinoline with 2-chloro-N-(quinol-8-yl)-acetamide as a receptor was designed and synthesized. The sensor shows good water solubility and high selectivity for sensing; about a 15-fold increase in fluorescence quantum yield and a 100 nm red-shift of fluorescence emission upon binding Zn(2+) in aqueous HEPES buffer solution are observed. The human lung cancer cell line (A549) activity is also demonstrated.

[250]

TÍTULO / TITLE: - Epigenetic downregulation of RUNX3 by DNA methylation induces docetaxel chemoresistance in human lung adenocarcinoma cells by activation of the AKT pathway.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - *Int J Biochem Cell Biol*. 2013 Jul 24. pii: S1357-2725(13)00236-7. doi: 10.1016/j.biocel.2013.07.013.

●● Enlace al texto completo (gratis o de pago)

[1016/j.biocel.2013.07.013](#)

AUTORES / AUTHORS: - Zheng Y; Wang R; Song HZ; Pan BZ; Zhang YW; Chen LB

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Jinling Hospital, Clinical School of Nanjing, Second Military Medical University, 305 Zhongshan East Road, Nanjing 210002, PR China.

RESUMEN / SUMMARY: - The RUNX3 gene has been shown to function as a tumor suppressor gene implicated in various cancers, but its association with tumor chemoresistance has not been fully understood. Here, we investigated the effect of epigenetic downregulation of RUNX3 in docetaxel resistance of human lung adenocarcinoma and its possible molecular mechanisms. RUNX3 was found to be downregulated by hypermethylation in docetaxel-resistant lung adenocarcinoma cells. Its overexpression could resensitize cells to docetaxel both in vitro and in vivo by growth inhibition, enhancement of apoptosis and G1 phase arrest. Conversely, knockdown of RUNX3 could lead to the decreased sensitivity of parental human lung adenocarcinoma cells to docetaxel by enhancing proliferative capacity. Furthermore, we showed that overexpression of RUNX3 could inactivate the AKT/GSK3beta/beta-catenin signaling pathway in the docetaxel-resistant cells. Importantly, co-transfection of RUNX3 and constitutively active Akt1 could reverse the effects of RUNX3 overexpression, while treatment with the MK-2206 (AKT inhibitor) mimicked the effects of RUNX3 overexpression in docetaxel-resistant human lung adenocarcinoma cells. Immunohistochemical analysis revealed that decreased RUNX3 expression was correlated with high expression of Akt1 and decreased sensitivity of patients to docetaxel-based chemotherapy. Taken together, our results suggest that epigenetic downregulation of RUNX3 can induce docetaxel resistance in human lung adenocarcinoma cells by activating AKT signaling and increasing expression of RUNX3 may represent a promising strategy for reversing docetaxel resistance in the future.

[251]

TÍTULO / TITLE: - ARF inhibits the growth and malignant progression of non-small-cell lung carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncogene. 2013 Jun 10. doi: 10.1038/onc.2013.208.

●● Enlace al texto completo (gratis o de pago) [1038/onc.2013.208](#)

AUTORES / AUTHORS: - Busch SE; Moser RD; Gurley KE; Kelly-Spratt KS; Liggitt HD; Kemp CJ

INSTITUCIÓN / INSTITUTION: - 1] Division of Human Biology, Fred Hutchinson Cancer Research Center, Seattle, WA, USA [2] Molecular and Cellular Biology Graduate Program, University of Washington, Seattle, WA, USA.

RESUMEN / SUMMARY: - Non-small-cell lung carcinoma (NSCLC) is among the deadliest of human cancers. The CDKN2A locus, which houses the INK4a and ARF tumor suppressor genes, is frequently altered in NSCLC. However, the

specific role of ARF in pulmonary tumorigenesis remains unclear. KRAS and other oncogenes induce the expression of ARF, thus stabilizing p53 activity and arresting cell proliferation. To address the role of ARF in Kras-driven NSCLC, we compared the susceptibility of NIH/Ola strain wild-type and Arf-knockout mice to urethane-induced lung carcinogenesis. Lung tumor size, malignancy and associated morbidity were significantly increased in Arf-/- compared with Arf+/+ animals at 25 weeks after induction. Pulmonary tumors from Arf-knockout mice exhibited increased cell proliferation and DNA damage compared with wild-type mice. A subgroup of tumors in Arf-/- animals presented as dedifferentiated and metastatic, with many characteristics of pulmonary sarcomatoid carcinoma, a neoplasm previously undocumented in mouse models. Our finding of a role for ARF in NSCLC is consistent with the observation that benign adenomas from Arf+/+ mice robustly expressed ARF, while ARF expression was markedly reduced in malignant adenocarcinomas. ARF expression also frequently colocalized with the expression of p21CIP1, a transcriptional target of p53, arguing that ARF induces the p53 checkpoint to arrest cell proliferation in vivo. Taken together, these findings demonstrate that induction of ARF is an early response in lung tumorigenesis that mounts a strong barrier against tumor growth and malignant progression. Oncogene advance online publication, 10 June 2013; doi:10.1038/onc.2013.208.

[252]

TÍTULO / TITLE: - Activation of NF-kappaB by SOD2 promotes the aggressiveness of lung adenocarcinoma by modulating NKX2-1-mediated IKKbeta expression.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Carcinogenesis. 2013 Jul 9.

●● [Enlace al texto completo \(gratis o de pago\) 1093/carcin/bgt220](#)

AUTORES / AUTHORS: - Chen PM; Wu TC; Wang YC; Cheng YW; Sheu GT; Chen CY; Lee H

INSTITUCIÓN / INSTITUTION: - Graduate Institute of Cancer Biology and Drug Discovery, Taipei Medical University, Taipei 115, Taiwan.

RESUMEN / SUMMARY: - Magnesium superoxide dismutase (SOD2) has been shown to cause dysfunction of p53 transcriptional activity, whereas, in turn, SOD2 expression is regulated by p53 to modulate lung tumorigenesis. In this study, we found that the level of SOD2 expression in a panel of lung cancer cells was negatively correlated with that of NK2 homeobox 1 (NKX2-1) but was not associated with p53 status. Mechanistic studies indicated that a decrease in NKX2-1 caused by SOD2-activated IKKbeta transcription was achieved by derepression of binding of Sp1 to the IKKbeta promoter. Immunoprecipitation, glutathione S-transferase pull-down experiments and electrophoretic mobility shift assays demonstrated a direct interaction between NKX2-1 and Sp1, blocking Sp1-mediated IKKbeta transcription. SOD2-mediated nuclear factor-

kappaB activation, via elevation of IKKbeta transcription, promoted anchorage-independent soft-agar growth, invasion and xenograft tumor formation, because of development of the epithelial-to-mesenchymal transition. The expression level of NKX2-1 messenger RNA was negatively associated with the extent of SOD immunostaining and the IKKbeta messenger RNA expression level in lung tumors. The extent of SOD2 immunostaining and IKKbeta messenger RNA levels may independently predict overall survival and relapse-free survival in lung adenocarcinoma patients. In summary, we found that SOD2 activates nuclear factor-kappaB signaling by increasing IKKbeta transcription, which results in progression of lung adenocarcinoma and poorer patient outcomes. We suggest that IKKbeta may potentially be targeted to improve outcomes in patients with SOD2-positive tumors.

[253]

TÍTULO / TITLE: - Evaluation of 2 Real-Time PCR Assays for In Vitro Diagnostic Use in the Rapid and Multiplex Detection of EGFR Gene Mutations in NSCLC.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Diagn Mol Pathol. 2013 Jul 9.

- Enlace al texto completo (gratis o de pago)

[1097/PDM.0b013e31827fedcc](#)

AUTORES / AUTHORS: - Wong AT; To RM; Wong CL; Chan WK; Ma ES

INSTITUCIÓN / INSTITUTION: - *Department of Pathology, Division of Molecular Pathology daggerDepartment of Pathology, Division of Histopathology, Hong Kong Sanatorium & Hospital, Happy Valley, Hong Kong.

RESUMEN / SUMMARY: - Activating mutations of the epidermal growth factor receptor (EGFR) gene in non-small cell lung cancer predict for a favorable clinical response to tyrosine kinase inhibitor therapy. Although Sanger sequencing is a conventional method to detect EGFR gene mutations, multiplex real-time allele-specific polymerase chain reaction (PCR) systems are increasingly used in the routine molecular diagnostic setting. We aim to evaluate 2 proprietary real-time PCR assays (cobas and thescreen) against Sanger sequencing in the detection of EGFR gene mutations. The overall concordance rate between cobas and thescreen assays with Sanger sequencing was 89% and 88%, respectively, and increased to 96% and 98%, respectively, if the mutations not covered were excluded. The cobas assay showed a superior coverage of exon 20 mutations, but L861Q was not targeted. The nature of specimen, DNA integrity, and tumor cell content are factors that affect the assay performance. DNA extracted from cell block and clot of pleural fluid gave rise to 1 invalid call and 1 false-negative result by the cobas assay and 1 missed T790M mutation and 1 false-negative result by the thescreen assay. Both assays are around 5 times more expensive compared with Sanger sequencing in terms of reagent cost. We conclude that both assays prove to be a rapid, simple, and validated method in detecting the most

common and clinically significant EGFR gene mutations in non-small cell lung cancer. Although less convenient compared with real-time PCR assays, Sanger sequencing is cheaper in terms of reagent cost and allows the detection of rare or novel EGFR gene mutations.

[254]

TÍTULO / TITLE: - Interleukin-22 Is Frequently Expressed in Small- and Large-Cell Lung Cancer and Promotes Growth in Chemotherapy-Resistant Cancer Cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):1032-1042.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1097/JTO.0b013e31829923c8](#)

AUTORES / AUTHORS: - Kobold S; Volk S; Clauditz T; Kupper NJ; Minner S; Tufman A; Duwell P; Lindner M; Koch I; Heidegger S; Rothenfuer S; Schnurr M; Huber RM; Wilczak W; Endres S

INSTITUCIÓN / INSTITUTION: - *Department of Internal Medicine IV, Division of Clinical Pharmacology and Center of Integrated Protein Science, Ludwig-Maximilians Universität München, Member of the German Center for Lung Research, Munich, Germany; daggerInstitute of Pathology, University Medical Center Hamburg-Eppendorf, Hamburg, Germany; Departments of double daggerInternal Medicine V, Thoracic Oncology Center, section signInternal Medicine IV, Munich, Ludwig-Maximilians Universität München, Munich, Germany, Member of the German Center for Lung Research; and ||Center for Thoracic Surgery, Asklepios Biobank for Lung Diseases, Asklepios Clinic München-Gauting, Comprehensive Pneumology Center Munich, München-Gauting, Germany, Member of the German Center for Lung Research.

RESUMEN / SUMMARY: - INTRODUCTION:: In lung cancer, interleukin-22 (IL-22) expression within primary tissue has been demonstrated, but the frequency and the functional consequence of IL-22 signaling have not been addressed. This study aims at analyzing the cellular effects of IL-22 on lung carcinoma cell lines and the prognostic impact of IL-22 tissue expression in lung cancer patients. METHODS:: Biological effects of IL-22 signaling were investigated in seven lung cancer cell lines by Western blot, flow cytometry, real-time polymerase chain reaction, and proliferation assays. Tumor tissue specimens of two cohorts with a total of 2300 lung cancer patients were tested for IL-22 expression by immunohistochemistry. IL-22 serum concentrations were analyzed in 103 additional patients by enzyme-linked immunosorbent assay. RESULTS:: We found the IL-22 receptor 1 (IL-22-R1) to be expressed in six of seven lung cancer cell lines. However IL-22 signaling was functional in only four cell lines, where IL-22 induced signal transducer activator of transcription 3 phosphorylation and increased cell proliferation. Furthermore, IL-22 induced the expression of antiapoptotic B-cell lymphoma 2, but did not rescue tumor cells

from carboplatin-induced apoptosis. Cisplatin-resistant cell lines showed a significant up-regulation of IL-22-R1 along with a stronger proliferative response to IL-22 stimulation. IL-22 was preferentially expressed in small- and large-cell lung carcinoma (58% and 46% of cases, respectively). However, no correlation between IL-22 expression by immunohistochemistry and prognosis was observed. CONCLUSION:: IL-22 is frequently expressed in lung cancer tissue. Enhanced IL-22-R1 expression and signaling in chemotherapy-refractory cell lines are indicative of a protumorigenic function of IL-22 and may contribute to a more aggressive phenotype.

[255]

TÍTULO / TITLE: - IL-10 Promotes Tumor Aggressiveness via Upregulation of CIP2A Transcription in Lung Adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Cancer Res. 2013 Aug 1;19(15):4092-103. doi: 10.1158/1078-0432.CCR-12-3439. Epub 2013 Jun 6.

●● Enlace al texto completo (gratis o de pago) [1158/1078-0432.CCR-12-3439](#)

AUTORES / AUTHORS: - Sung WW; Wang YC; Lin PL; Cheng YW; Chen CY; Wu TC; Lee H

INSTITUCIÓN / INSTITUTION: - Authors' Affiliations: School of Medicine, and Institute of Medicine; Division of Chest Medicine, Department of Internal Medicine, and Department of Medical Research, Chung Shan Medical University Hospital; Department of Surgery, China Medical University Hospital, Taichung; and Graduate Institute of Cancer Biology and Drug Discovery, Taipei Medical University, Taipei, Taiwan, China.

RESUMEN / SUMMARY: - PURPOSE: Interleukin-10 (IL-10) determines virus persistent infection and promotes viral-associated tumor progression via tumor immune escape. However, the role of IL-10 in tumor progression and prognosis in lung adenocarcinoma remains controversial. EXPERIMENTAL DESIGN: To investigate how IL-10 is regulated by HPV E6, IL-10 promoter was constructed to understand which transcriptional factor could be responsible for its transcription. To verify which molecule could be responsible for IL-10-mediated soft agar growth and invasion capability, PCR array and mechanistic strategies were conducted. IL-10 and CIP2A mRNA levels in lung tumors from patients with lung cancer were determined by real-time reverse transcription PCR. The prognostic value of both molecules on survival was estimated by Cox regression model. RESULTS: Mechanistic studies showed that IL-10 protein and mRNA expression was decreased in E6 knockdown TL1 cells and increased in E6-overexpressing TL4 cells. In addition, IL-10 transcription was predominantly regulated by E6-mediated phosphorylation of cAMP response element-binding protein (CREB) and C/enhancer-binding protein beta (C/EBPbeta) via phosphoinositide 3-kinase (PI3K) signaling pathway. IL-10-

mediated tumor aggressiveness in vitro and in vivo occurs through increased CIP2A expression via PI3K signaling pathway. Among patients, IL-10 mRNA expression in lung tumors was positively correlated with CIP2A mRNA expression. Cox-regression analysis showed that IL-10 and CIP2A mRNA levels may independently predict survival in patients with lung adenocarcinoma, especially in patients with E6-positive tumors. CONCLUSION: IL-10 production from lung tumors and immune cells promotes lung adenocarcinoma aggressiveness and patients with poor survival. We thus suggest that PI3K inhibitor combined with chemotherapy may potentially enhance tumor regression and improve patients' outcome and life quality. Clin Cancer Res; 19(15); 4092-103. ©2013 AACR.

[256]

TÍTULO / TITLE: - Calyxin Y induces hydrogen peroxide-dependent autophagy and apoptosis via JNK activation in human non-small cell lung cancer NCI-H460 cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Lett. 2013 Jun 27. pii: S0304-3835(13)00471-0. doi: 10.1016/j.canlet.2013.06.021.

●● Enlace al texto completo (gratis o de pago)

1016/j.canlet.2013.06.021

AUTORES / AUTHORS: - Zhang C; Yang L; Wang XB; Wang JS; Geng YD; Yang CS; Kong LY

INSTITUCIÓN / INSTITUTION: - State Key Laboratory of Natural Medicines, Department of Natural Medicinal Chemistry, China Pharmaceutical University, Nanjing 210009, China.

RESUMEN / SUMMARY: - Calyxin Y has been recently isolated from *Alpinia katsumadai* which has a folk use as an anti-tumor medicine. Calyxin Y induced caspase-dependent cell death in NCI-H460 cells, and concomitantly, provoked cytoprotective autophagy with the upregulation of critical Atg proteins. The cleavage of Atg proteins by caspases acted as a switch between autophagy and apoptosis induced by calyxin Y. Intracellular hydrogen peroxide (H₂O₂) production was triggered upon exposure to calyxin Y via the induction of autophagy and apoptosis. We provided evidence that activated JNK was upstream effectors controlling both autophagy and apoptosis in response to elevated H₂O₂. Therefore, our findings demonstrate that calyxin Y serves multiple roles as a promising chemotherapeutic agent that induces H₂O₂-dependent autophagy and apoptosis via JNK activation.

[257]

TÍTULO / TITLE: - Clinical evaluation of microRNA expression profiling in non small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jun 8. pii: S0169-5002(13)00219-5. doi: 10.1016/j.lungcan.2013.05.007.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.007](#)

AUTORES / AUTHORS: - Markou A; Sourvinou I; Vorkas PA; Yousef GM; Lianidou E

INSTITUCIÓN / INSTITUTION: - Laboratory of Analytical Chemistry, Department of Chemistry, University of Athens, Athens, Greece.

RESUMEN / SUMMARY: - Deregulation of miRNAs expression levels has been detected in many human tumor types, and recent studies have demonstrated the critical roles of miRNAs in cancer pathogenesis. Numerous recent studies have shown that miRNAs are rapidly released from tissues into the circulation in many pathological conditions. The high relative stability of miRNAs in biofluids such as plasma and serum, and the ability of miRNA expression profiles to accurately classify discrete tissue types and disease states have positioned miRNAs as promising non-invasive new tumor biomarkers. In this study, we used liquid bead array technology (Luminex) to profile the expression of 320 mature miRNAs in a pilot testing group of 19 matched fresh frozen cancerous and non-cancerous tissues from NSCLC patients. We further validated our results by RT-qPCR for differentially expressed miRNAs in an independent group of 40 matched fresh frozen tissues, 37 plasma samples from NSCLC patients and 28 healthy donors. We found that eight miRNAs (miR-21, miR-30d, miR-451, miR-10^a, miR-30e-5p and miR-126*, miR-126, miR-145) were differentially expressed by three different statistical analysis approaches. Two of them (miR-10^a and miR-30e-5p) are reported here for the first time. Bead-array results were further verified in an independent group of 40 matched fresh frozen tissues by RT-qPCR. According to RT-qPCR miR-21 was significantly up-regulated (P=0.010), miR-126* (P=0.002), miR-30d (P=0.012), miR-30e-5p (P<0.001) and miR-451 (P<0.001) were down-regulated, while miR-10^a was not differentiated (P=0.732) in NSCLC tissues. However, in NSCLC plasma samples, only three of these miRNAs (miR-21, miR-10^a, and miR-30e-5p) displayed differential expression when compared to plasma of healthy donors. High expression of miR-21 was associated with DFI and OS both in NSCLC tissues (P=0.022 and P=0.037) and plasma (P=0.045 and P=0.065), respectively. Moreover, we report for the first time that low expression of miR-10^a in NSCLC plasma samples was associated with worse DFI (P=0.050) and high expression of miR-30e-5p was found to be associated with shorter OS (P=0.048). In conclusion, circulating miR-21, miR-10^a and miR-30e-5p in plasma should be further evaluated as potential non-invasive biomarkers in NSCLC.

[258]

TÍTULO / TITLE: - A Monte Carlo investigation of lung brachytherapy treatment planning.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Phys Med Biol. 2013 Jul 21;58(14):4763-80. doi: 10.1088/0031-9155/58/14/4763. Epub 2013 Jun 20.

●● Enlace al texto completo (gratis o de pago) [1088/0031-9155/58/14/4763](#)

AUTORES / AUTHORS: - Sutherland JG; Furutani KM; Thomson RM

INSTITUCIÓN / INSTITUTION: - Carleton Laboratory for Radiotherapy Physics, Department of Physics, Carleton University, Ottawa, ON, USA.

RESUMEN / SUMMARY: - Iodine-125 ((125)I) and Caesium-131 ((131)Cs) brachytherapy have been used in conjunction with sublobar resection to reduce the local recurrence of stage I non-small cell lung cancer compared with resection alone. Treatment planning for this procedure is typically performed using only a seed activity nomogram or look-up table to determine seed strand spacing for the implanted mesh. Since the post-implant seed geometry is difficult to predict, the nomogram is calculated using the TG-43 formalism for seeds in a planar geometry. In this work, the EGSnrc user-code BrachyDose is used to recalculate nomograms using a variety of tissue models for (125)I and (131)Cs seeds. Calculated prescription doses are compared to those calculated using TG-43. Additionally, patient CT and contour data are used to generate virtual implants to study the effects that post-implant deformation and patient-specific tissue heterogeneity have on perturbing nomogram-derived dose distributions. Differences of up to 25% in calculated prescription dose are found between TG-43 and Monte Carlo calculations with the TG-43 formalism underestimating prescription doses in general. Differences between the TG-43 formalism and Monte Carlo calculated prescription doses are greater for (125)I than for (131)Cs seeds. Dose distributions are found to change significantly based on implant deformation and tissues surrounding implants for patient-specific virtual implants. Results suggest that accounting for seed grid deformation and the effects of non-water media, at least approximately, are likely required to reliably predict dose distributions in lung brachytherapy patients.

[259]

TÍTULO / TITLE: - Pulmonary fibroblasts induce epithelial mesenchymal transition and some characteristics of stem cells in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Thorac Surg. 2013 Aug;96(2):425-33. doi: 10.1016/j.athoracsur.2013.03.092. Epub 2013 Jun 15.

●● Enlace al texto completo (gratis o de pago) [1016/j.athoracsur.2013.03.092](#)

AUTORES / AUTHORS: - Shintani Y; Abulaiti A; Kimura T; Funaki S; Nakagiri T; Inoue M; Sawabata N; Minami M; Morii E; Okumura M

INSTITUCIÓN / INSTITUTION: - Department of General Thoracic Surgery, Osaka University Graduate School of Medicine, Osaka, Japan. Electronic address: yshintani@thoracic.med.osaka-u.ac.jp.

RESUMEN / SUMMARY: - BACKGROUND: Fibroblasts are key components of the tumor microenvironment. The purpose of this study was to clarify the role of fibroblasts in tumor progression in non-small cell lung cancer (NSCLC). METHODS: Fibroblasts isolated from surgical exploration were co-cultured with human lung adenocarcinoma cell lines. We defined fibroblasts obtained from tumors as cancer associated fibroblasts (CAFs) and those from normal lung tissue as lung normal fibroblasts (LNFs). RESULTS: Expression levels of myofibroblast markers were higher in CAFs than LNFs within 5 passages in the absence of continuing interaction with carcinoma cells. Thus, we used at least 2 pairs of these CAFs and LNFs in the following experiments; conditioned medium (CM) from fibroblast-induced epithelial mesenchymal transition and acquisition of cancer stem cell-like qualities in lung cancer cells (A549 and NCI-H358), indicating that CM from fibroblasts was biologically active. Furthermore, the concentration of the transforming growth factor (TGF)-beta1 was higher in CM from CAFs as compared with that from LNFs, and phenotypic changes of cancer cells by CM from CAFs were greater than those induced by CM from LNFs. These CAF-induced changes were inhibited by addition of the TGF-beta inhibitor SB431542. Subcutaneous co-injection of lung cancer cells and CAFs in mice enhanced tumor growth when compared with cancer cells alone, which was attenuated by administration of SB431542. CONCLUSIONS: Fibroblasts were associated with increased malignant potential and the acquisition of stem cell-like properties in NSCLC tumors. Targeting CAFs as a therapeutic strategy against cancer is an intriguing concept that would benefit from further study.

[260]

TÍTULO / TITLE: - Ki 67 is an Independent Predictive Biomarker of Cancer Specific and Local Recurrence-Free Survival After Lung Tumor Ablation.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Surg Oncol. 2013 Jul 30.

●● Enlace al texto completo (gratis o de pago) [1245/s10434-013-3140-](https://doi.org/10.1245/s10434-013-3140-1)

[1](#)

AUTORES / AUTHORS: - Sofocleous CT; Garg SK; Cohen P; Petre EN; Gonen M; Erinjeri JP; Downey RJ; Travis WD; Solomon SB

INSTITUCIÓN / INSTITUTION: - Department of Radiology, Memorial Sloan-Kettering Cancer Center, New York, NY, USA, sofoclec@mskcc.org.

RESUMEN / SUMMARY: - BACKGROUND: The objective of this work was to evaluate the feasibility of histopathological analysis of tissue extracted on multitined electrodes and assess whether tissue characteristics can be used as

biomarkers of oncologic outcomes after lung tumor radiofrequency (RF) ablation. METHODS: Treatment-related data regarding RF ablation of lung malignancies at our institution was collected using a Health Insurance Portability and Accountability Act-compliant ablation database. Institutional review board waiver was obtained for this study. Immunohistochemical analysis of tissue extracted from the electrodes after lung tumor RF ablation was performed for proliferation (Ki-67) and apoptosis (caspase-3). Patient, tumor demographics, and ablation parameters were recorded. Local tumor progression-free survival (LPFS), disease-specific survival (DSS), and overall survival (OS) were assessed using Kaplan-Meier methodology. Multivariate analysis determined factors affecting these oncological outcomes. RESULTS: A total of 47 lung tumors in 42 patients were ablated; 30 specimens were classified as coagulation necrosis (CN) and 17 as Ki-67-positive (+) tumor cells (viable). Tumor sizes were similar in the CN and Ki-67+ groups ($P = 0.32$). Median LPFS was 10 versus 16 months for Ki-67+ and CN groups, and 1-year LPFS was 34 and 75 %, respectively ($P = 0.003$). Median OS was 20 and 46 months ($P = 0.12$), and median DSS was 20 and 68 months ($P = 0.01$) for the Ki-67 + and CN groups, respectively. Identification of Ki-67+ tumor cells more than tripled the risk of death from cancer [hazard ratio (HR) = 3.65; 95 % confidence interval (95 % CI), 1.34-9.95; $P = 0.01$] and tripled the risk of local tumor progression (LTP) (HR = 3.01; 95 % CI, 1.39-6.49; $P = 0.005$). CONCLUSIONS: Ki-67+ tumor cells on the electrode after pulmonary tumor RF ablation is an independent predictor of LTP, shorter LPFS, and DSS.

[261]

TÍTULO / TITLE: - Identification and association study with lung cancer for novel insertion polymorphisms of human endogenous retrovirus.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Carcinogenesis. 2013 Jul 19.

●● Enlace al texto completo (gratis o de pago) [1093/carcin/bgt253](#)

AUTORES / AUTHORS: - Kahyo T; Tao H; Shinmura K; Yamada H; Mori H; Funai K; Kurabe N; Suzuki M; Tanahashi M; Niwa H; Ogawa H; Tanioka F; Yin G; Morita M; Matsuo K; Kono S; Sugimura H

INSTITUCIÓN / INSTITUTION: - Department of Tumor Pathology; Higashi-ku, Hamamatsu, 431-3192, Japan.

RESUMEN / SUMMARY: - Sequences of human endogenous retroviruses (HERVs) are members of the long terminal repeat (LTR) retrotransposon family. While the expression of HERV has long been a topic of investigation, HERV-insertion polymorphisms are not well known, and a genetic association between HERV-insertion polymorphisms and cancer has never been reported. To identify novel HERV loci in the genome from cancer tissues, we carried out the inverse PCR method targeting a conserved LTR region of HML-2, which is the most recently acquired HERV group. Novel two insertions, HML-

2_sLTR(1p13.2) and HML-2_sLTR(19q12), were identified as insertionally polymorphic solo LTRs. Furthermore, a significant prevalence of HML-2_sLTR(1p13.2) homozygosity was detected in female never-smoking patients aged 60 years and over who had lung adenocarcinoma (vs. the other genotyping; odds ratio, 1.97; 95% confidence interval, 1.01-3.81). In another cohort consisting of female never-smoking patients with lung adenocarcinoma, a prevalence of HML-2_sLTR(1p13.2) homozygosity tended to be high in patients aged 60 years and over (vs. the other genotyping; odds ratio, 2.03; 95% confidence interval, 0.96-4.29), while a low prevalence of HML-2_sLTR(1p13.2) homozygosity was detected in patients less than 60 years old (vs. the other genotyping; odds ratio, 0.31; 95% confidence interval, 0.11-0.94). Our results suggest that HML-2_sLTR(1p13.2) is involved with the susceptibility to lung adenocarcinoma in female never-smokers in an age-dependent manner, and that other HERV polymorphisms related to human diseases might remain to be identified in the human genome.

[262]

TÍTULO / TITLE: - Clinical statement on the role of the surgeon and surgical issues relating to computed tomography screening programs for lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Thorac Surg. 2013 Jul;96(1):357-60. doi: 10.1016/j.athoracsur.2013.05.067.

●● Enlace al texto completo (gratis o de pago)

[1016/j.athoracsur.2013.05.067](#)

AUTORES / AUTHORS: - Rocco G; Allen MS; Altorki NK; Asamura H; Blum MG; Dettnerbeck FC; Dresler CM; Gossot D; Grondin SC; Jaklitsch MT; Mitchell JD; Newton JR Jr; Van Schil PE; Waddell TK; Wood DE

INSTITUCIÓN / INSTITUTION: - Division of Thoracic Surgery, National Cancer Institute, Pascale Foundation, Naples, Italy. Electronic address: gaetano.rocco@btopenworld.com.

[263]

TÍTULO / TITLE: - Parthenolide reverses doxorubicin resistance in human lung carcinoma A549 cells by attenuating NF-kappaB activation and HSP70 up-regulation.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Toxicol Lett. 2013 Jun 20;221(2):73-82. doi: 10.1016/j.toxlet.2013.06.215.

●● Enlace al texto completo (gratis o de pago)

[1016/j.toxlet.2013.06.215](#)

AUTORES / AUTHORS: - Xin Y; Yin F; Qi S; Shen L; Xu Y; Luo L; Lan L; Yin Z

INSTITUCIÓN / INSTITUTION: - Jiangsu Province Key Laboratory for Molecular and Medical Biotechnology, College of Life Science, Nanjing Normal University, Nanjing 210023, Jiangsu, PR China.

RESUMEN / SUMMARY: - Chemotherapy resistance represents a major problem for the treatment of patients with lung carcinomas. Parthenolide (PN), a naturally occurring small molecule found in herb feverfew, has been used in clinical treatment. Although its importance in treating the chemotherapy resistance has been shown, the pharmacological benefits of PN for lung cancer with multidrug resistance are underappreciated. Using human lung epithelial carcinoma A549 and A549 derived DOX-resistant A549/DOX cell lines, we found that PN enhanced the apoptotic cytotoxicity of DOX in A549/DOX cells. PN inhibited P-glycoprotein (P-gp) up-regulation and promoted the intracellular accumulation of DOX in A549/DOX cells. PN also exhibited inhibitory effect on NF-kappaB activation in A549/DOX cells, suggesting that inhibition of NF-kappaB was involved in attenuating P-gp expression by PN. Moreover, we found that PN could also effectively inhibit the HSP70 up-regulation in A549/DOX cells. Further studies revealed a positive correlation between HSP70 and P-gp expression. Overexpression of HSP70 upregulated P-gp expression independently of NF-kappaB activation in A549 cells, and knockdown of HSP70 caused a reduced expression of P-gp in A549/DOX cells. RT-PCR experiments showed that HSP70 modulated the P-gp expression mainly at transcription level. Taken together, PN can reverse DOX resistance through suppressing P-gp expression by mechanisms involving attenuation of NF-kappaB activation and HSP70 up-regulation. Our results not only provide insight into potential use of PN in reversing P-gp mediated MDR to facilitate lung cancer chemotherapy, but also highlight a potential role of HSP70 in the development of drug resistance.

[264]

TÍTULO / TITLE: - Ketogenic diets enhance oxidative stress and radio-chemotherapy responses in lung cancer xenografts.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Cancer Res. 2013 Jul 15;19(14):3905-13. doi: 10.1158/1078-0432.CCR-12-0287. Epub 2013 Jun 6.

●● Enlace al texto completo (gratis o de pago) [1158/1078-0432.CCR-12-0287](#)

AUTORES / AUTHORS: - Allen BG; Bhatia SK; Buatti JM; Brandt KE; Lindholm KE; Button AM; Szweda LI; Smith BJ; Spitz DR; Fath MA

INSTITUCIÓN / INSTITUTION: - Authors' Affiliations: Free Radical and Radiation Biology Program, Department of Radiation Oncology, Holden Comprehensive Cancer Center and Department of Biostatistics, College of Public Health, The University of Iowa, Iowa City, Iowa; and Oklahoma Medical Research Foundation, Oklahoma City, Oklahoma.

RESUMEN / SUMMARY: - PURPOSE: Ketogenic diets are high in fat and low in carbohydrates as well as protein which forces cells to rely on lipid oxidation and mitochondrial respiration rather than glycolysis for energy metabolism. Cancer cells (relative to normal cells) are believed to exist in a state of chronic oxidative stress mediated by mitochondrial metabolism. The current study tests the hypothesis that ketogenic diets enhance radio-chemo-therapy responses in lung cancer xenografts by enhancing oxidative stress. EXPERIMENTAL DESIGN: Mice bearing NCI-H292 and A549 lung cancer xenografts were fed a ketogenic diet (KetoCal 4:1 fats: proteins+carbohydrates) and treated with either conventionally fractionated (1.8-2 Gy) or hypofractionated (6 Gy) radiation as well as conventionally fractionated radiation combined with carboplatin. Mice weights and tumor size were monitored. Tumors were assessed for immunoreactive 4-hydroxy-2-nonenal-(4HNE)-modified proteins as a marker of oxidative stress as well as proliferating cell nuclear antigen (PCNA) and gammaH2AX as indices of proliferation and DNA damage, respectively. RESULTS: The ketogenic diets combined with radiation resulted in slower tumor growth in both NCI-H292 and A549 xenografts (P < 0.05), relative to radiation alone. The ketogenic diet also slowed tumor growth when combined with carboplatin and radiation, relative to control. Tumors from animals fed a ketogenic diet in combination with radiation showed increases in oxidative damage mediated by lipid peroxidation as determined by 4HNE-modified proteins as well as decreased proliferation as assessed by decreased immunoreactive PCNA. CONCLUSIONS: These results show that a ketogenic diet enhances radio-chemo-therapy responses in lung cancer xenografts by a mechanism that may involve increased oxidative stress. Clin Cancer Res; 19(14); 3905-13. ©2013 AACR.

[265]

TÍTULO / TITLE: - Clinic significance of microRNA-99^a expression in human lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Surg Oncol. 2013 Jul 24. doi: 10.1002/jso.23381.

●● Enlace al texto completo (gratis o de pago) [1002/jso.23381](#)

AUTORES / AUTHORS: - Gu W; Fang S; Gao L; Tan Y; Yang Z

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Nanjing First Hospital, Nanjing Medical University, No. 68 Changle Road, Jiangsu Province, Nanjing City, China.

RESUMEN / SUMMARY: - BACKGROUND: The purpose of this study was to investigate the clinical significance of microRNA-99^a expression in lung adenocarcinoma. METHODS: qRT-PCR assay was performed to detect miR-99^a expression in lung adenocarcinoma cells or tissues. The correlations of miR-99^a expression with clinicopathological factors and prognosis of lung adenocarcinoma patients were analyzed. The effects of miR-99^a expression on

growth and apoptosis of lung adenocarcinoma cell line and its potential target gene were determined by MTT, flow cytometry, luciferase reporter, and Western blot assays. RESULTS: The relative miR-99^a expression in lung adenocarcinoma cells was significantly lower than that in normal lung bronchial epithelium cell line. Also, miR-99^a expression in lung adenocarcinoma tissues was significantly lower than that in corresponding nontumor tissues. Low miR-99^a expression was found to be closely correlated with advanced clinical stage and lymph node metastasis. Kaplan-Meier survival and Cox regression analyses showed that the status of miR-99^a expression was an independent prognosis factor for lung adenocarcinoma patients. Functional analyses showed that upregulation of miR-99^a could inhibit growth and induce apoptosis in lung adenocarcinoma cells by targeting mTOR. CONCLUSION: Low MiR-99^a expression was a poor prognostic factor for patients with lung adenocarcinoma, and miR-99^a functions as a tumor suppressor by targeting mTOR. J. Surg. Oncol. © 2013 Wiley Periodicals, Inc.

[266]

TÍTULO / TITLE: - Marijuana use and risk of lung cancer: a 40-year cohort study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Causes Control. 2013 Jul 12.

●● Enlace al texto completo (gratis o de pago) [1007/s10552-013-0259-](http://1007/s10552-013-0259-0)

[0](#)

AUTORES / AUTHORS: - Callaghan RC; Allebeck P; Sidorchuk A

INSTITUCIÓN / INSTITUTION: - Northern Medical Program, University of Northern British Columbia (UNBC), 3333 University Way, Prince George, BC, V2N 4Z9, Canada, russ.callaghan@unbc.ca.

RESUMEN / SUMMARY: - PURPOSE: Cannabis (marijuana) smoke and tobacco smoke contain many of the same potent carcinogens, but a critical-yet unresolved-medical and public-health issue is whether cannabis smoking might facilitate the development of lung cancer. The current study aimed to assess the risk of lung cancer among young marijuana users. METHODS: A population-based cohort study examined men (n = 49,321) aged 18-20 years old assessed for cannabis use and other relevant variables during military conscription in Sweden in 1969-1970. Participants were tracked until 2009 for incident lung cancer outcomes in nationwide linked medical registries. Cox regression modeling assessed relationships between cannabis smoking, measured at conscription, and the hazard of subsequently receiving a lung cancer diagnosis. RESULTS: At the baseline conscription assessment, 10.5 % (n = 5,156) reported lifetime use of marijuana and 1.7 % (n = 831) indicated lifetime use of more than 50 times, designated as “heavy” use. Cox regression analyses (n = 44,284) found that such “heavy” cannabis smoking was significantly associated with more than a twofold risk (hazard ratio 2.12, 95 % CI 1.08-4.14) of developing lung cancer over the 40-year follow-up period, even

after statistical adjustment for baseline tobacco use, alcohol use, respiratory conditions, and socioeconomic status. CONCLUSION: Our primary finding provides initial longitudinal evidence that cannabis use might elevate the risk of lung cancer. In light of the widespread use of marijuana, especially among adolescents and young adults, our study provides important data for informing the risk-benefit calculus of marijuana smoking in medical, public-health, and drug-policy settings.

[267]

TÍTULO / TITLE: - Decreased miRNA-148^a is associated with lymph node metastasis and poor clinical outcomes and functions as a suppressor of tumor metastasis in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Rep. 2013 Jul 9. doi: 10.3892/or.2013.2611.

●● [Enlace al texto completo \(gratis o de pago\) 3892/or.2013.2611](#)

AUTORES / AUTHORS: - Chen Y; Min L; Zhang X; Hu S; Wang B; Liu W; Wang R; Gu X; Shen W; Lv H; Zou J; Chen Y; Xu X; Chen L

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Clinical Medical College of Yangzhou University, Yangzhou, Jiangsu 225001, P.R. China.

RESUMEN / SUMMARY: - Non-small cell lung cancer (NSCLC) is the leading cause of cancer-related death worldwide, and only 15% of lung cancer patients live more than 5 years. microRNAs (miRNAs) are endogenously expressed non-coding RNAs, and dysregulation of miRNAs is a common feature in human cancers including lung cancer. In this study, we describe the epigenetic regulation of miRNA-148^a and its prognostic value in NSCLC. Due to hypermethylation of the miRNA148a encoding region, the expression levels of miRNA-148^a were decreased in NSCLC tissues and cells. Decreased miRNA148a expression was associated with lymph node metastasis, advanced clinical stage and shortened disease-free survival and overall survival in NSCLC, and was an independent prognostic factor for overall survival in multivariate analysis. In vitro, overexpression of miRNA-148^a significantly suppressed the migratory and invasive abilities of A549 and H1299 lung cancer cells. Enforced expression of miRNA-148^a in lung cancer cell lines resulted in a significant reduction in the expression of DNMT1. This, in turn, led to a decrease in DNA methylation of the tumor-suppressor gene E-cadherin and induced an increase in the protein levels of E-cadherin. By understanding the function and molecular mechanism of miRNA-148^a in NSCLC, miRNA-148^a may have therapeutic potential to suppress lung cancer metastasis.

[268]

TÍTULO / TITLE: - The prognostic role of pathologic invasive component size, excluding lepidic growth, in stage I lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Cardiovasc Surg. 2013 Jun 15. pii: S0022-5223(13)00497-2. doi: 10.1016/j.jtcvs.2013.04.032.

●● Enlace al texto completo (gratis o de pago)

[1016/j.jtcvs.2013.04.032](#)

AUTORES / AUTHORS: - Tsutani Y; Miyata Y; Mimae T; Kushitani K; Takeshima Y; Yoshimura M; Okada M

INSTITUCIÓN / INSTITUTION: - Department of Surgical Oncology, Hiroshima University, Hiroshima, Japan.

RESUMEN / SUMMARY: - **OBJECTIVES:** We performed an investigation of the prognostic significance of the invasive component size, excluding lepidic growth, in lung adenocarcinoma patients. **METHODS:** The data from 603 patients with completely resected pathologic stage I lung adenocarcinomas were analyzed retrospectively to determine the relationship between pathologic tumor size and surgical results. **RESULTS:** The median tumor size of the total growth and the invasive component were 2.2 cm and 1.3 cm, respectively. There were significant differences in recurrence-free survival between patients classified on the basis of invasive component sizes (≤ 0.5 cm vs 0.5-2.0 cm, $P < .001$; and 0.5-2.0 cm vs > 2.0 cm; $P = .026$). A multivariate Cox regression analysis showed that invasive component size ($P = .002$), age, sex, and lymphatic invasion were independent prognostic factors for recurrence-free survival, whereas total tumor size was not ($P = .068$). There were no significant differences in recurrence-free survival between patients who received adjuvant chemotherapy and those who did not in the group with invasive component size of 0.5 cm or less ($P = .29$) and in the group with invasive component size of 0.5 to 2.0 cm ($P = .50$). However, the recurrence-free survival of patients who received adjuvant chemotherapy was significantly better than that of those who did not in the group with invasive component size greater than 2.0 cm ($P = .009$). **CONCLUSIONS:** Pathologic invasive component size, as opposed to total tumor size, is associated more significantly with malignant behavior and prognosis and specifically should be considered before choosing candidates for adjuvant chemotherapy in pathologic stage I lung adenocarcinoma.

[269]

TÍTULO / TITLE: - Quercetin potentiates apoptosis by inhibiting nuclear factor-kappaB signaling in H460 lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biol Pharm Bull. 2013;36(6):944-51.

AUTORES / AUTHORS: - Youn H; Jeong JC; Jeong YS; Kim EJ; Um SJ

INSTITUCIÓN / INSTITUTION: - Department of Bioscience and Biotechnology, BK21 Graduate Program, Sejong University, Seoul, Korea.

RESUMEN / SUMMARY: - The herbal flavonoid quercetin inhibits the growth of various cancer cells, but how it affects human cancer cells, particularly lung

cancer cells, is unclear. We investigated the anticancer activity of quercetin and the underlying molecular mechanisms in non-small cell lung cancer (NSCLC) cells. Quercetin strongly inhibited cell proliferation, and increased sub-G1 and apoptotic cell populations regardless of p53 status. Quercetin-induced apoptosis was verified by caspase cleavage, Hoechst staining, trypan blue exclusion, and DNA fragmentation assays. Microarray analysis using H460 cells indicated that quercetin increased the expression of genes associated with death receptor signaling tumor necrosis factor-related apoptosis-inducing ligand receptor (TRAILR), caspase-10, interleukin (IL) 1R DNA fragmentation factor 45 (DFF45), tumor necrosis factor receptor (TNFR) 1, FAS, inhibitor of kappaB (IkappaB) and cell cycle inhibition growth arrest and DNA-damage inducible 45 (GADD45), p21(Cip1)), but decreased the expression of genes involved in nuclear factor (NF)-kappaB activation (NF-kappaB, IKKalpha). Further validation assays confirmed that quercetin inhibited growth by suppressing NF-kappaB and by increasing the expression of death receptors and cell cycle inhibitors. Taken together, these findings suggest that quercetin may be useful in the prevention and therapy of NSCLC.

[270]

TÍTULO / TITLE: - Enhancement of in vitro cell motility and invasiveness of human malignant pleural mesothelioma cells through the HIF-1alpha-MUC1 pathway.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Lett. 2013 Jul 20. pii: S0304-3835(13)00540-5. doi: 10.1016/j.canlet.2013.07.020.

●● Enlace al texto completo (gratis o de pago)

1016/j.canlet.2013.07.020

AUTORES / AUTHORS: - Goudarzi H; Iizasa H; Furuhashi M; Nakazawa S; Nakane R; Liang S; Hida Y; Yanagihara K; Kubo T; Nakagawa K; Kobayashi M; Irimura T; Hamada JI

INSTITUCIÓN / INSTITUTION: - Division of Stem Cell Biology, Institute for Genetic Medicine, Hokkaido University, Kita-15, Nishi-7, Kita-ku, Sapporo 060-0815, Japan.

RESUMEN / SUMMARY: - In this study, we examined the effects of hypoxia on the malignancy of human malignant pleural mesothelioma (MPM) cell lines, and found (1) hypoxia enhanced motility and invasiveness of human malignant pleural mesothelioma (MPM) cells; (2) this phenomenon resulted from increased expression of sialylated MUC1 through the activation of HIF-1 pathway; (3) two HIF-binding sites located in the promoter region of MUC1 were important for MUC1 transactivation under hypoxia. These findings are useful for better understanding molecular mechanisms of aggressive behavior of MPM cells and for targeting them in the clinical therapies for MPM patients.

[271]

TÍTULO / TITLE: - Role of poly(ADP-ribosyl)ation in a 'two-hit' model of hypoxia and oxidative stress in human A549 epithelial cells in vitro.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Mol Med. 2013 May 29. doi: 10.3892/ijmm.2013.1397.

●● Enlace al texto completo (gratis o de pago) [3892/ijmm.2013.1397](#)

AUTORES / AUTHORS: - Erdelyi K; Pacher P; Virag L; Szabo C

INSTITUCIÓN / INSTITUTION: - Department of Anesthesiology, The University of Texas Medical Branch, Galveston, TX 77555-1102, USA.

RESUMEN / SUMMARY: - A preceding hypoxic insult can sensitize the cells or the organism to a subsequent, second insult. The aim of the present study was to investigate the molecular mechanism of this phenomenon (often termed 'two-hit' injury paradigm), in an in vitro model of hypoxia/oxidative stress injury in A549 epithelial cells, with special emphasis on the role of the nuclear enzyme poly(ADP-ribose) polymerase-1 (PARP-1) in the process. Pre-exposure of the cells to 24 h hypoxia significantly reduced intracellular glutathione (GSH) levels, reduced mitochondrial activity and adenosine triphosphate (ATP) levels. However pre-exposure to hypoxia failed to induce any change in PARP-1 expression and activation, DNA singlestrand breaks or plasma membrane integrity. Pre-exposure to hypoxia markedly increased the sensitivity of the cells to subsequent oxidative stress-induced DNA damage. Hydrogen peroxide (H₂O₂) induced a concentration-dependent increase in DNA breakage, PARP activation, depletion of intracellular ATP, inhibition of mitochondrial activity and two distinct parameters that quantify the breakdown of plasma membrane integrity (propidium iodide uptake or lactate dehydrogenase release). PARP-1 activation played a significant role in the H₂O₂-induced cell death response because PARP activation, depletion of intracellular ATP, inhibition of mitochondrial activity, and the breakdown of plasma membrane integrity were attenuated in cells with permanently silenced PARP-1. Based on measurement of the endogenous antioxidant GSH, we hypothesized that the mechanism of hypoxia-mediated enhancement of H₂O₂ involves depletion of the GSH during the hypoxic period, which renders the cells more sensitive to a subsequent DNA singlestrand break elicited by H₂O₂. DNA strand breakage then activates PARP-1, leading to the inhibition of mitochondrial function, depletion of ATP and cell necrosis. PARP-1 deficiency protects against the cytotoxicity, to a lesser degree, by protecting against GSH depletion during the hypoxic period, and, to a larger degree, by maintaining mitochondrial function and preserving intracellular ATP levels during the subsequent oxidative stress period.

[272]

TÍTULO / TITLE: - Up-regulation of DDX39 in human malignant pleural mesothelioma cell lines compared to normal pleural mesothelial cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Jun;33(6):2557-60.

AUTORES / AUTHORS: - Kuramitsu Y; Tominaga W; Baron B; Tokuda K; Wang Y; Kitagawa T; Nakamura K

INSTITUCIÓN / INSTITUTION: - Department of Biochemistry and Functional Proteomics, Yamaguchi University Graduate School of Medicine, Ube, Japan.

RESUMEN / SUMMARY: - Malignant pleural mesothelioma (MPM) is a malignant tumor originating from mesothelial cells existing in pleura. Since its incidence, it is closely related to the amount and time of exposure to asbestos, and the latency period after exposure to asbestos is very long, the incidence may increase over the next two decades. Since early detection is very difficult and there is no standard curative therapy, it is important to understand the biology of MPM, and to find biomarkers and molecular targets for its therapy. DDX39 is one of the Asp-Glu-Ala-Asp (DEAD)-box RNA helicases, which are required for the export of mRNA out of the nucleus, and transcription, splicing and transport of mRNA. Some reports have shown differential expression of DDX39 in tumor cells or tissues such as lung squamous cell cancer, gastrointestinal stromal tumor and urinary bladder cancer. In the present study, the protein levels of DDX39 in the human MPM cell lines NCI-H28, NCI-H2052 and NCI-H2452, and the human pleural mesothelial cell line MeT-5^a were investigated by western blotting. The protein levels of DDX39 were found to be higher in NCI-H28, NCI-H2052 and NCI-H2452 compared to MeT-5^a. The intensity of the bands of DDX39 in NCI-H28, NCI-H2052 and NCI-H2452 cells were increased by 1.351-, 1.887- and 2.024-fold, respectively, compared to MPM cells. These results suggest that DDX39 is a possible candidate biomarker for molecular-targeting of MPM.

[273]

TÍTULO / TITLE: - Safety and Efficacy of Stereotactic Body Radiotherapy for Stage I Non-Small-Cell Lung Cancer in Routine Clinical Practice: A Patterns-of-Care and Outcome Analysis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):1050-1058.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e318293dc45](#)

AUTORES / AUTHORS: - Guckenberger M; Allgauer M; Appold S; Dieckmann K; Ernst I; Ganswindt U; Holy R; Nestle U; Nevinny-Stickel M; Semrau S; Sterzing F; Wittig A; Andratschke N

INSTITUCIÓN / INSTITUTION: - *Universitat Wurzburg, Klinik und Poliklinik fur Strahlentherapie, Wurzburg, Germany; daggerBarmherzige Bruder, Klinik fur Strahlentherapie, Regensburg, Germany; double daggerUniversitätsklinikum

Dresden, Klinik und Poliklinik für Strahlentherapie und Radioonkologie, Dresden, Germany; section sign Allgemeines Krankenhaus Wien, Univ. Klinik für Strahlentherapie, Wien, Austria; || Universitätsklinikum Münster, Klinik für Strahlentherapie, Münster, Germany; paragraph sign Ludwig-Maximilians Universität München, Klinik und Poliklinik für Strahlentherapie und Radioonkologie, München, Germany; # Universitätsklinikum Aachen, Klinik für Strahlentherapie, Aachen, Germany; ** Universitätsklinikum Freiburg, Klinik für Strahlenheilkunde, Freiburg, Germany; daggerdagger Medizinischen Universität Innsbruck, Univ. Klinik für Strahlentherapie und Radioonkologie, Innsbruck, Austria; double daggerdouble dagger Universitätsklinikum Erlangen, Strahlenklinik Erlangen, Erlangen, Germany; section sign section sign Universitätsklinikum Heidelberg, Klinik für RadioOnkologie und Strahlentherapie, Heidelberg, Germany; || || Philipps-Universität Marburg, Klinik für Strahlentherapie und Radioonkologie, Germany; and paragraph sign paragraph sign Technische Universität München, Klinik und Poliklinik für Strahlentherapie und Radiologische Onkologie, München, Germany.

RESUMEN / SUMMARY: - INTRODUCTION:: To evaluate safety and efficacy of stereotactic body radiotherapy (SBRT) for stage I non-small-cell lung cancer (NSCLC) in a patterns-of-care and patterns-of-outcome analysis. METHODS:: The working group “Extracranial Stereotactic Radiotherapy” of the German Society for Radiation Oncology performed a retrospective multicenter analysis of practice and outcome after SBRT for stage I NSCLC. Sixteen German and Austrian centers with experience in pulmonary SBRT were asked to participate. RESULTS:: Data of 582 patients treated at 13 institutions between 1998 and 2011 were collected; all institutions, except one, were academic hospitals. A time trend to more advanced radiotherapy technologies and escalated irradiation doses was observed, but patient characteristics (age, performance status, pulmonary function) remained stable over time. Interinstitutional variability was substantial in all treatment characteristics but not in patient characteristics. After an average follow-up of 21 months, 3-year freedom from local progression (FFLP) and overall survival (OS) were 79.6% and 47.1%, respectively. The biological effective dose was the most significant factor influencing FFLP and OS: after more than 106 Gy biological effective dose as planning target volume encompassing dose (N = 164), 3-year FFLP and OS were 92.5% and 62.2%, respectively. No evidence of a learning curve or improvement of results with larger SBRT experience and implementation of new radiotherapy technologies was observed. CONCLUSION:: SBRT for stage I NSCLC was safe and effective in this multi-institutional, academic environment, despite considerable interinstitutional variability and time trends in SBRT practice. Radiotherapy dose was identified as a major treatment factor influencing local tumor control and OS.

TÍTULO / TITLE: - Impact of time of day on outcomes after stereotactic radiosurgery for non-small cell lung cancer brain metastases.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer. 2013 Jul 9. doi: 10.1002/cncr.28237.

●● Enlace al texto completo (gratis o de pago) [1002/cncr.28237](#)

AUTORES / AUTHORS: - Badiyan SN; Ferraro DJ; Yaddanapudi S; Drzymala RE; Lee AY; Silver SA; Dyk P; Dewees T; Simpson JR; Rich KM; Robinson CG

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology Mallinckrodt Institute of Radiology, Washington University in St. Louis, St. Louis, Missouri.

RESUMEN / SUMMARY: - **BACKGROUND:** This study tested the hypothesis that time of day of treatment with stereotactic radiosurgery (SRS) has an effect on local control (LC) and overall survival (OS) in a large cohort of patients with non-small cell lung cancer (NSCLC) brain metastases. **METHODS:** At Washington University in St. Louis, 437 patients with NSCLC were treated with SRS for NSCLC brain metastases. Receiver operating characteristics analysis was used to identify an optimal cut-point for OS relative to time of day. Kaplan-Meier log-rank statistics, and Cox regression univariate and multivariate analysis were employed to isolate any independent effect of treatment time on OS and LC. Matched-pair analysis was performed to isolate any independent effect of time on OS and LC of day while controlling for confounding variables. **RESULTS:** Receiver operating characteristics analysis identified a cut-point of 11:41 AM as providing the highest predictive value for OS. On univariate analysis, late SRS was associated with decreased OS, as was age, Karnofsky performance status, risk-stratification schemes, extracranial disease status, and overall burden of brain metastases. On univariate analysis for LC, late SRS was associated with decreased LC, as was burden of brain metastases. On multivariate analysis, only Graded Prognostic Assessment remained predictive of OS, and total number of targets and total tumor volume remained predictive of LC. Matched-pair analysis demonstrated no significant effect of time of day on LC or OS. **CONCLUSIONS:** Although earlier treatment appears to be associated with improved LC and OS, treatment time fails to remain significant when accounting for confounding variables. Cancer 2013. © 2013 American Cancer Society.

[275]

TÍTULO / TITLE: - Myeloperoxidase G463A polymorphism and lung cancer risk in Asians: a pooled analysis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumour Biol. 2013 Jul 7.

●● Enlace al texto completo (gratis o de pago) [1007/s13277-013-0868-](#)

[y](#)

AUTORES / AUTHORS: - Zhou YY; Zhang SM; Cai ZG; Zhang H; Wang L; Xu XP; Wu HB

INSTITUCIÓN / INSTITUTION: - Thoracic Tumor Center, People's Liberation Army 455 Hospital, 338 West Huaihai Road, Changning District, Shanghai, 200052, China.

RESUMEN / SUMMARY: - Myeloperoxidase (MPO) is an endogenous oxidant enzyme and can generate reactive oxygen species. The MPO G463A polymorphism influences MPO transcription levels and has been proposed to be associated with risk of lung cancer. To assess the effect of MPO G463A polymorphism on lung cancer risk in Asians, a pooled analysis of published case-control studies was performed. PubMed, Embase, China Biomedical Literature, and Wanfang Medicine databases were searched for eligible studies. The strength of the association between MPO G463A polymorphism and lung cancer risk was measured by odds ratio (OR) with 95 % confidence interval (95% CI). Finally, eight studies with a total of 1,679 lung cancer cases and 1,876 non-cancer controls were included. Overall, MPO G463A polymorphism was associated with decreased risk of lung cancer risk in Asians under two genetic models (OR AA vs. GG = 0.58, 95% CI 0.36-0.96, P = 0.033; OR AA vs. GG+AG = 0.60, 95% CI 0.37-0.98, P = 0.040). There was no obvious risk of publication bias in this meta-analysis. In conclusion, the pooled analysis suggests that MPO G463A polymorphism is associated with decreased risk of lung cancer risk in Asians.

[276]

TÍTULO / TITLE: - Downregulation of microRNA-182 inhibits cell growth and invasion by targeting programmed cell death 4 in human lung adenocarcinoma cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumour Biol. 2013 Jul 23.

●● Enlace al texto completo (gratis o de pago) [1007/s13277-013-1004-](#)

[8](#)

AUTORES / AUTHORS: - Wang M; Wang Y; Zang W; Wang H; Chu H; Li P; Li M; Zhang G; Zhao G

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, People's Hospital of Zhengzhou, Zhengzhou, 450053, China.

RESUMEN / SUMMARY: - Lung cancer is a major cause of cancer death worldwide. Programmed cell death 4 (PDCD4), an important tumor suppressor, influences transcription and translation of multiple genes and modulates different signal transduction pathways. However, the upstream regulation of this gene is largely unknown. In our study, we found that microRNA-182 (miR-182) was upregulated, whereas PDCD4 was downregulated in lung cancer cell lines. We performed methyl thiazolyl tetrazolium and colony formation assays to study the influence of miR-182 on proliferation of the lung cancer cell lines A549 and SPC-A-1. We also carried out Transwell and wound healing assays to investigate the effect of miR-182 on invasion and migration of A549 and SPC-

A-1. Finally, using the luciferase reporter assay and restore assay, we demonstrated that PDCD4 is a direct target of miR-182. These results suggest that in lung adenocarcinoma cells, miR-182 plays an oncogenic role as a direct negative regulator of PDCD4.

PTPTPTP - JOURNAL ARTICLE ----- [277]

TÍTULO / TITLE: - Charity launches {pound}14m UK-wide lung cancer research initiative.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - BMJ. 2013 Jul 18;347:f4628. doi: 10.1136/bmj.f4628.

AUTORES / AUTHORS: - Chinthapalli K

INSTITUCIÓN / INSTITUTION: - BMJ.

[278]

TÍTULO / TITLE: - Who to screen for lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - BMJ. 2013 Jul 23;347:f4686. doi: 10.1136/bmj.f4686.

[279]

TÍTULO / TITLE: - Major crush: a solitary fibrous pleural tumor.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Med. 2013 Aug;126(8):685-6. doi: 10.1016/j.amjmed.2013.05.001. Epub 2013 Jun 18.

●● Enlace al texto completo (gratis o de pago)

[1016/j.amjmed.2013.05.001](#)

AUTORES / AUTHORS: - Schattner A; Sokolovski N; Altman E; Adi M

INSTITUCIÓN / INSTITUTION: - Department of Medicine, Kaplan Medical Center, Rehovot, Israel; Hebrew University and Hadassah Medical School, Jerusalem, Israel. Electronic address: amimd@clalit.org.il.

[280]

TÍTULO / TITLE: - Angiotensin receptor blockers: are they related to lung cancer?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Hypertens. 2013 Aug;31(8):1669-1675.

●● Enlace al texto completo (gratis o de pago)

[1097/HJH.0b013e3283621ea3](#)

AUTORES / AUTHORS: - Rao GA; Mann JR; Shoaibi A; Pai SG; Bottai M; Sutton SS; Haddock KS; Bennett CL; Hebert JR

INSTITUCIÓN / INSTITUTION: - aResearch Department, Veterans Affairs Medical Center bDepartment of Family and Preventive Medicine, School of Medicine cDepartment of Epidemiology and Biostatistics, School of Public Health,

University of South Carolina, Columbia, South Carolina dDepartment of Internal Medicine, Louisiana State University Health Science Center, Shreveport, Louisiana, USA eKarolinska Institutet, The Institute of Environmental Medicine, Stockholm, Sweden fSouth Carolina College of Pharmacy gCancer Prevention and Control Program, University of South Carolina, Columbia, South Carolina, USA.

RESUMEN / SUMMARY: - INTRODUCTION:: Angiotensin receptor blockers (ARBs) are commonly used antihypertensive medication with several other additional proven benefits. Recent controversy on association of lung cancer and other solid malignancy with the use of ARBs is concerning, although the follow-up studies have shown no such association. METHODS:: We used data from the Department of Veterans Affairs electronic medical record system and registries to conduct a retrospective cohort study that compared first-time ARB users with nonusers in 1:15 ratio, after balancing for many baseline differences using inverse probability of treatment weights. We conducted time-to-event survival analyses on the weighted cohort. RESULTS:: Of the 1 229 902 patients in the analytic cohort, 346 (0.44%) of the 78 075 treated individuals had a newly incident lung cancer and 6577 (0.57%) of 1 151 826 nontreated individuals were diagnosed with lung cancer. On double robust regression, the weighted hazard ratio was 0.74 (0.67-0.83, $P < 0.0001$), suggesting a lung cancer reduction effect with ARB use. There was no difference in rates by ARB subtype. CONCLUSION:: In this large nationwide cohort of United States Veterans, we found no evidence to support any concern of increased risk of lung cancer among new users of ARBs compared with nonusers. Our findings were consistent with a protective effect of ARBs.

[281]

TÍTULO / TITLE: - Stereotactic ablative radiotherapy: A potentially curable approach to early stage multiple primary lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer. 2013 Jun 24. doi: 10.1002/cncr.28217.

●● Enlace al texto completo (gratis o de pago) [1002/cncr.28217](#)

AUTORES / AUTHORS: - Chang JY; Liu YH; Zhu Z; Welsh JW; Gomez DR; Komaki R; Roth JA; Swisher SG

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, The University of Texas MD Anderson Cancer Center, Houston, Texas.

RESUMEN / SUMMARY: - BACKGROUND: Surgical resection has been the standard treatment for early stage multiple primary lung cancer (MPLC). However, a significant proportion of patients with MPLC cannot undergo surgery. For this report, the authors explored the role of stereotactic ablative radiotherapy (SABR) for patients with MPLC. METHODS: Patients with MPLC who received SABR (50 grays [Gy] in 4 fractions or 70 Gy in 10 fractions) for the second tumor were reviewed. Four-dimensional, computed tomography-

based, planning/volumetric image-guided treatment was used for all patients. Treatment outcomes/toxicities were analyzed. RESULTS: For the 101 patients who received SABR, at a median follow-up of 36 months and with a median overall survival (OS) of 46 months, the 2-year and 4-year in-field local control rates were 97.4% and 95.7%, respectively. The 2-year and 4-year OS rates were 73.2% and 47.5%, respectively; and the progression-free survival (PFS) rates were 67% and 58%, respectively. Patients who had metachronous tumors had better OS and PFS than patients who had synchronous tumors (2-year OS: 80.6% metachronous vs 61.5% synchronous; 4-year OS: 52.7% vs 39.7%, respectively; P = .047; 2-year PFS: 84.7% vs 49.4%, respectively; 4-year PFS: 75.6% vs 30.4%, respectively; P = .0001). For patients who either underwent surgery or received SABR for an index tumor, the incidence of grade \geq 3 radiation pneumonitis was 3% (2 of 71 patients); however, this increased to 17% (5 of 30 patients) for those who received conventional radiotherapy for an index tumor. Other grade \geq 3 toxicities included grade 3 chest wall pain (3 of 101 patients; 3%) and grade 3 skin toxicity (1 of 101 patients; 1%). CONCLUSIONS: SABR achieves promising long-term tumor control and survival and may be a potential curative treatment for early stage MPLC.

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[282]

TÍTULO / TITLE: - Change in IgG Fc N-linked glycosylation in human lung cancer: Age- and sex-related diagnostic potential.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Electrophoresis. 2013 Jun 13. doi: 10.1002/elps.201200455.

●● Enlace al texto completo (gratis o de pago) [1002/elps.201200455](#)

AUTORES / AUTHORS: - Chen G; Wang Y; Qin X; Li H; Guo Y; Wang Y; Liu H; Wang X; Song G; Li F; Li F; Guo S; Qiu L; Li Z

INSTITUCIÓN / INSTITUTION: - Department of Biophysics and Structural Biology, Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences & Peking Union Medical College (CAMS & PUMC), Beijing, P. R. China.

RESUMEN / SUMMARY: - The interactions of IgG Fc region with Fc receptors are optimized by the tailoring of a single-conserved N-linked glycosylation site at

Asn-297. Our previous study has demonstrated that the age-related Fc-glycosylation change is featured by sex specificity and that the Fc-glycosylation has the potential for disease discrimination. Here, we conducted a Fourier transform ion cyclotron resonance MS-based profiling study involving 410 control individuals and 259 lung cancer (LC) patients. As compared to healthy controls, the marked increase in IgG1 Fc-agalactosylation and decrease in galactosylation were observed in LC patients. The binary logistic regression in combination with the receiver operating characteristic curve was used to determine the diagnostic ability of IgG1 Fc-glycosylation. It was found that this diagnostic ability was both sex and age dependent. Additionally, the change in Fc-glycosylation upon many different physiological and pathological conditions was retrospectively discussed. The data furthered the understanding of the immune-associated change in human LC, and also might be useful in the future attempts for Fc-glycosylation-associated diagnostic evaluations and clinical assays.

[283]

TÍTULO / TITLE: - Silibinin reverses drug resistance in human small-cell lung carcinoma cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Lett. 2013 Jul 20. pii: S0304-3835(13)00537-5. doi: 10.1016/j.canlet.2013.07.017.

●● Enlace al texto completo (gratis o de pago)

1016/j.canlet.2013.07.017

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RESUMEN / SUMMARY: - Small-cell lung carcinoma (SCLC) has a dismal prognosis in part because of multidrug resistance (MDR). Silibinin is a flavonolignan extracted from milk thistle (*Silybum marianum*), extracts of which are used in traditional medicine. We tested the effects of silibinin on drug-sensitive (H69) and multi-drug resistant (VPA17) SCLC cells. VPA17 cells did not show resistance to silibinin (IC₅₀=60μM for H69 and VPA17). Flow cytometry analysis after incubation in 30μM silibinin showed no changes in cell cycle phases in VPA17 or H69 cells compared with untreated cells. Silibinin (30μM) incubation was pro-apoptotic in VPA17 cells after >3days, as measured by ELISA of BUdR labeled DNA fragments. Apoptosis was also indicated by an increase in caspase-3 specific activity and decrease in survivin in VPA17 MDR cells. VPA17 cells had increased Pgp-mediated efflux of calcein acetoxymethyl ester (calcein AM); however, this was inhibited in cells pre-incubated in silibinin for 5days. Pre-incubation of VPA17 cells in 30μM silibinin for 5days also reversed resistance to etoposide (IC₅₀=5.50-0.65μM) and

doxorubicin (IC₅₀=0.620-0.035μM). The possible synergistic relationship between silibinin and chemotherapy drugs was determined by exposure of VPA17 cells to 1:1 ratios of their respective IC₅₀ values, with serial dilutions at 0.25-2.0xIC₅₀ and calculation of the combination index (CI). Silibinin and etoposide showed synergism (CI=0.46 at ED₅₀), as did silibinin and doxorubicin (CI=0.24 at ED₅₀). These data indicate that in SCLC, silibinin is pro-apoptotic, reverses MDR and acts synergistically with chemotherapy drugs. Silibinin, a non-toxic natural product may be useful in the treatment of drug-resistant SCLC.

[284]

TÍTULO / TITLE: - miR-503 regulates the resistance of non-small cell lung cancer cells to cisplatin by targeting Bcl-2.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Mol Med. 2013 Sep;32(3):593-8. doi: 10.3892/ijmm.2013.1439. Epub 2013 Jul 12.

●● Enlace al texto completo (gratis o de pago) [3892/ijmm.2013.1439](#)

AUTORES / AUTHORS: - Qiu T; Zhou L; Wang T; Xu J; Wang J; Chen W; Zhou X; Huang Z; Zhu W; Shu Y; Liu P

INSTITUCIÓN / INSTITUTION: - Department of Oncology, The First Affiliated Hospital of Nanjing Medical University, Nanjing, Jiangsu 210029, P.R. China.

RESUMEN / SUMMARY: - Drug resistance is one of the leading causes of chemotherapy failure in cancer treatment. MicroRNAs (miRNAs or miRs) are short non-coding RNA molecules that post-transcriptionally regulate gene expression and play a critical role in diverse biological processes. In this study, we report that miR-503 regulates the resistance of non-small cell lung cancer cells to cisplatin. The expression of miR-503 was decreased in the cisplatin-resistant non-small cell lung cancer cells, A549/CDDP, compared with the parental A549 cells. The overexpression of miR-503 sensitized the A549/CDDP cells to cisplatin, whereas the inhibition of miR-503 in the A549 cells increased resistance to cisplatin. Mechanistically, miR-503 specifically targeted Bcl-2, an anti-apoptotic protein upregulated in the A549/CDDP cells. The ectopic expression of miR-503 reduced the Bcl-2 protein level and sensitized the A549/CDDP cells to cisplatin-induced apoptosis. Taken together, our results suggest that miR-503 regulates cell apoptosis, at least in part by targeting Bcl-2, and thus modulates the resistance of non-small cell lung cancer cells to cisplatin.

[285]

TÍTULO / TITLE: - Inflammatory stress response in A549 cells as a result of exposure to coal: Evidence for the role of pyrite in coal workers' pneumoconiosis pathogenesis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chemosphere. 2013 Jul 26. pii: S0045-6535(13)00939-9. doi: 10.1016/j.chemosphere.2013.06.082.

●● Enlace al texto completo (gratis o de pago)

[1016/j.chemosphere.2013.06.082](#)

AUTORES / AUTHORS: - Harrington AD; Tsirka SE; Schoonen MA

INSTITUCIÓN / INSTITUTION: - Department of Geosciences, Earth and Space Sciences Building, Stony Brook University, Stony Brook, NY 11784-2100, USA; Institute of Environmental Medicine, New York University, 57 Old Forge Road, Tuxedo, NY 10987, USA. Electronic address: Andrea.Harrington@nyumc.org.

RESUMEN / SUMMARY: - On the basis of a recent epidemiological study it is hypothesized that pyrite content in coal is an important factor in coal workers' pneumoconiosis (CWP) pathogenesis. While the role of pyrite in pathogenesis remains to be resolved, the ability of the mineral to generate reactive oxygen species (ROS) through various mechanisms is likely a contributing factor. The aim of this study was to elucidate the importance of the pyrite content of coal in generating an inflammatory stress response (ISR), which is defined as the upregulation of ROS normalized by cell viability. The ISR of A549 human lung epithelial cells in the presence of natural coal samples with variable pyrite contents was measured. Normalized to surface area, five particle loadings for each coal reference standard were analyzed systematically for a total of 24h. The ISR generated by coals containing 0.00, 0.01, and 0.49wt.% pyritic sulfur is comparable to, though less than, the ISR generated by inert glass beads (299% of the control). The coals containing 0.52 and 1.15wt.% pyritic sulfur generated the greatest ISR (798% and 1426% of the control, respectively).

CONCLUSIONS: While ISR does not increase proportionally to pyrite content in coal, the two coals with the highest pyritic sulfur and available iron contents generate the greatest ISR. Therefore, the present study indicates that coals with elevated pyrite contents are likely to induce a significant health burden by stimulating inflammation within the lungs, and may contribute to the development of CWP.

[286]

TÍTULO / TITLE: - Bilateral pneumothorax complicating cystic metastases of bronchial squamous cell carcinoma under erlotinib.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumori. 2013 Mar-Apr;99(2):e77-9. doi: 10.1700/1283.14213.

●● Enlace al texto completo (gratis o de pago) [1700/1283.14213](#)

AUTORES / AUTHORS: - Giroux Leprieur E; Dumenil C; Labrune S; Giraud V; Chinet T

INSTITUCIÓN / INSTITUTION: - Department of Pulmonology and Thoracic Oncology, Ambroise Pare Hospital - AHPH, Versailles - Saint Quentin en

Yvelines University, Boulogne-Billancourt, France. etienne.giroux-leprieur@apr.aphp.fr

RESUMEN / SUMMARY: - Cystic lung metastases are a rare presentation in non-small cell lung cancer and occurs mainly in squamous cell carcinoma. We present the case of a 57-year-old woman with a lung squamous cell carcinoma and cystic lung metastases, who developed bilateral metachronous pneumothorax while being administered erlotinib in third-line treatment. The apparition of a pneumothorax under chemotherapy is most often the result of tumor necrosis and formation of bronchopleural fistula. However, very few cases have been reported under targeted therapies, and to our knowledge this is the first case under erlotinib. This complication is potentially life-threatening, especially due to the possibility of pneumothorax bilateralization.

[287]

TÍTULO / TITLE: - Doxorubicin-loaded porous PLGA microparticles with surface attached TRAIL for the inhalation treatment of metastatic lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biomaterials. 2013 Sep;34(27):6444-53. doi: 10.1016/j.biomaterials.2013.05.018. Epub 2013 Jun 4.

●● Enlace al texto completo (gratis o de pago)

1016/j.biomaterials.2013.05.018

AUTORES / AUTHORS: - Kim I; Byeon HJ; Kim TH; Lee ES; Oh KT; Shin BS; Lee KC; Youn YS

INSTITUCIÓN / INSTITUTION: - School of Pharmacy, Sungkyunkwan University, 300 Cheoncheon-dong, Jangan-gu, Suwon 440-746, Republic of Korea.

RESUMEN / SUMMARY: - Inhalable highly porous large PLGA microparticles with incorporated doxorubicin and surface-attached with TRAIL (TRAIL/Dox PLGA MP) were fabricated using a w/o/w double emulsification method using ammonium bicarbonate as a gas-foaming agent for the treatment of lung cancer. The TRAIL/Dox PLGA MP produced were highly porous and 11.5 +/- 0.4 µm in diameter, and the loading efficiencies of Dox and TRAIL were 86.5 +/- 6.5% and 91.8 +/- 2.4%, respectively. TRAIL and doxorubicin were gradually released by TRAIL/Dox PLGA over 7 days, and pulmonary administration resulted in the deposition of TRAIL/Dox PLGA MP in mouse lungs, and they remained in situ for up to a week. The anti-tumor efficacy of pulmonary administered TRAIL/Dox PLGA MP was evaluated in a BALB/c nu/nu mice mouse model of H226 cell metastasis. Tumors in H226-implanted mice treated with TRAIL/Dox PLGA MP were markedly smaller and fewer in number than mice treated with TRAIL or Dox PLGA MP alone. Furthermore, this improved performance was found to be due to the synergistic apoptotic effects of the two drugs. We believe that TRAIL/Dox PLGA MP offer a promise of a sustained-release, long-acting, inhalable anti-lung cancer agent. Furthermore, the synergism observed between TRAIL and doxorubicin suggests that the

doxorubicin dosage could be substantially reduced and its side effects minimized.

[288]

TÍTULO / TITLE: - USP8 Is a Novel Target for Overcoming Gefitinib Resistance in Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Cancer Res. 2013 Jul 15;19(14):3894-3904. Epub 2013 Jun 7.

- Enlace al texto completo (gratis o de pago) [1158/1078-0432.CCR-12-3696](#)

AUTORES / AUTHORS: - Byun S; Lee SY; Lee J; Jeong CH; Farrand L; Lim S; Reddy K; Kim JY; Lee MH; Lee HJ; Bode AM; Won Lee K; Dong Z

INSTITUCIÓN / INSTITUTION: - Authors' Affiliations: The Hormel Institute, University of Minnesota, Austin, Minnesota; WCU Major in Biomodulation, Department of Agricultural Biotechnology; Department of Molecular Medicine and Biopharmaceutical Sciences, Graduate School of Convergence Sciences and Technology; Major in Food Science and Biotechnology, Department of Agricultural Biotechnology, Seoul National University, Seoul; College of Pharmacy, Keimyung University, DaeGu, Republic of Korea; and Department of Obstetrics & Gynecology and Cellular & Molecular Medicine, University of Ottawa, Ottawa Hospital Research Institute, Ottawa, Canada.

RESUMEN / SUMMARY: - PURPOSE: Common treatment modalities for non-small cell lung cancer (NSCLC) involve the EGF receptor-tyrosine kinase inhibitors (EGFR-TKIs) like gefitinib and erlotinib. However, the vast majority of treated patients acquire resistance to EGFR-TKIs, due, in large part, to secondary mutations in EGFR or amplification of the MET gene. Our purpose was to test ubiquitin-specific peptidase 8 (USP8) as a potential therapeutic target for gefitinib-resistant and -sensitive non-small cell lung cancer (NSCLC). EXPERIMENTAL DESIGN: Testing the effect of knockdown of USP8 and use of a synthetic USP8 inhibitor to selectively kill gefitinib-resistant (or -sensitive) NSCLCs with little effect on normal cells in cell culture and a xenograft mouse model. RESULTS: Knockdown of ubiquitin-specific peptidase 8 (USP8) selectively kills gefitinib-resistant NSCLCs while having little toxicity toward normal cells. Genetic silencing of USP8 led to the downregulation of several receptor tyrosine kinases (RTK) including EGFR, ERBB2, ERBB3, and MET. We also determined that a synthetic USP8 inhibitor markedly decreased the viability of gefitinib-resistant and -sensitive NSCLC cells by decreasing RTK expression while having no effect on normal cells. Moreover, treatment with a USP8 inhibitor led to significant reductions in tumor size in a mouse xenograft model using gefitinib-resistant and -sensitive NSCLC cells. CONCLUSIONS: Our results show for the first time that the inhibition of USP8 activity or reduction in USP8 expression can selectively kill NSCLC cells. We propose USP8 as a

potential therapeutic target for gefitinib-resistant and -sensitive NSCLC cells. Clin Cancer Res; 19(14); 3894-904. ©2013 AACR.

[289]

TÍTULO / TITLE: - A detailed immunohistochemical analysis of the PI3K/AKT/mTOR pathway in lung cancer: Correlation with PIK3CA, AKT1, K-RAS or PTEN mutational status and clinicopathological features.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Rep. 2013 Aug;30(2):623-36. doi: 10.3892/or.2013.2512. Epub 2013 May 31.

●● Enlace al texto completo (gratis o de pago) [3892/or.2013.2512](#)

AUTORES / AUTHORS: - Trigka EA; Levidou G; Saetta AA; Chatziandreu I; Tomos P; Thalassinou N; Anastasiou N; Spartalis E; Kavantzias N; Patsouris E; Korkolopoulou P

INSTITUCIÓN / INSTITUTION: - First Department of Pathology, University of Athens Medical School, Laiko General Hospital, 11527 Athens, Greece.

RESUMEN / SUMMARY: - The phosphoinositide 3-kinase (PI3K)/v-akt murine thymoma viral oncogene homolog (AKT)/mammalian target of rapamycin (mTOR) pathway is upregulated in a number of human cancers, including non-small cell lung cancer (NSCLC). Its potential role in NSCLC progression provides an attractive target for anticancer therapy. The expression of phosphorylated mTOR (p-mTOR), phosphorylated AKT (p-AKT), p85alpha and p110gamma subunits of PI3K, phosphorylated p70S6K (p-p70S6K), phosphatase and tensin homolog (PTEN) and phosphorylated 4E-BP1 (p4EBP1) was examined by immunohistochemistry in 102 NSCLC specimens. The results were correlated with clinicopathological features. We also examined 61 of our cases for the presence of PIK3CA, AKT1, PTEN and K-RAS mutations. A common PIK3CA mutation was detected at exon 9 in 2 samples (p.E545K), whereas another sample displayed a rare mutation (p.D1018N). Furthermore, 10 out of 54 cases (18.5%) had a K-RAS mutation at codon 12, 5 had a PTEN mutation (exons 7 and 8) and 1 case had an AKT1 mutation (p.E17K). PTEN mutations were associated with nodal metastases. The expression of p-mTOR positively correlated with that of p-AKT and p-p70S6K and was higher in adenocarcinomas along with nuclear p110gammaPI3K expression, whereas p-4E-BP1 expression was higher in squamous cell carcinomas. We also established a positive association between p85alphaPI3K or p110gammaPI3K and cytoplasmic p-AKT and its downstream effectors. An inverse correlation was noted between p-4E-BP1 immunorexpression and tumour status and nuclear p-AKT expression as regards tumour stage. Univariate survival analysis demonstrated that p-4E-BP1 expression, either alone or in combination with cytoplasmic p-AKT expression had an adverse prognostic significance in adenocarcinomas. The combination of p-4EBP1 and cytoplasmic p-AKT expression remained significant in the multivariate analysis

as a function of their interaction with histological type. Our data demonstrate the significance of p4EBP1 immunoexpression as a molecular marker of prognostic value in adenocarcinomas, particularly when combined with p-AKT.

[290]

TÍTULO / TITLE: - Molecular sputum analysis for the diagnosis of lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Br J Cancer. 2013 Aug 6;109(3):530-7. doi: 10.1038/bjc.2013.393. Epub 2013 Jul 18.

●● Enlace al texto completo (gratis o de pago) [1038/bjc.2013.393](#)

AUTORES / AUTHORS: - Hubers AJ; Prinsen CF; Sozzi G; Witte BI; Thunnissen E
INSTITUCIÓN / INSTITUTION: - Department of Pathology, VU University Medical Center, De Boelelaan 1117, 1081 HV Amsterdam, The Netherlands.

RESUMEN / SUMMARY: - Lung cancer is the leading cause of cancer mortality rate worldwide, mainly because of the presence of metastatic disease at the time of diagnosis. Early detection of lung cancer improves prognosis, and towards this end, large screening trials in high-risk individuals have been conducted since the past century. Despite all efforts, the need for novel (complementary) lung cancer diagnostic and screening methods still exists. In this review, we focus on the assessment of lung cancer-related biomarkers in sputum in the past decennium. Besides cytology, mutation and microRNA analysis, special attention has been paid to DNA promoter hypermethylation, of which all available literature is summarised without time restriction. A model is proposed to aid in the distinction between diagnostic and risk markers. Research on the use of sputum for non-invasive detection of early-stage lung cancer has brought new insights and advanced molecular techniques. The sputum shows a promising potential for routine diagnostic and possibly screening purposes.

[291]

TÍTULO / TITLE: - Sirt3 is a tumor suppressor in lung adenocarcinoma cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Rep. 2013 Jul 8. doi: 10.3892/or.2013.2604.

●● Enlace al texto completo (gratis o de pago) [3892/or.2013.2604](#)

AUTORES / AUTHORS: - Xiao K; Jiang J; Wang W; Cao S; Zhu L; Zeng H; Ouyang R; Zhou R; Chen P

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, The Second Xiangya Hospital, Institute of Respiratory Disease, Central South University, Changsha, Hunan 410011, P.R. China.

RESUMEN / SUMMARY: - Sirt3, a member of the mammalian sirtuin family protein that is localized to mitochondria, is a NAD⁺-dependent deacetylase and plays an important role in the control of metabolic activity. Recently, several studies

have shown the potential role of Sirt3 in certain types of tumors such as breast cancer and hepatocellular carcinoma. However, the role of Sirt3 in lung adenocarcinoma has never been studied. In the present study, we found that Sirt3 protein expression was downregulated in human lung adenocarcinoma tissue when compared with that in adjacent normal tissue. Overexpression of Sirt3 using adenovirus significantly inhibited the growth of the A549 lung adenocarcinoma cell line. In this cell line, overexpression of Sirt3 induced apoptosis, which was evidenced by Annexin V + PI assay and cleaved caspase-3 immunoblotting. Furthermore, overexpression of Sirt3 increased the bax/bcl-2 and bad/bcl-x/L ratios, and promoted AIF translocation to the nucleus. Finally, Sirt3 overexpression upregulated p53 and p21 protein levels, and decreased intracellular ROS levels. Collectively, our data suggest that Sirt3 is a tumor suppressor in lung adenocarcinoma development and progression and may be a promising therapeutic target for lung adenocarcinoma.

[292]

TÍTULO / TITLE: - Aspirin antagonizes the cytotoxic effect of methotrexate in lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Rep. 2013 Jun 21. doi: 10.3892/or.2013.2561.

●● [Enlace al texto completo \(gratis o de pago\) 3892/or.2013.2561](#)

AUTORES / AUTHORS: - Yan KH; Lee LM; Hsieh MC; Yan MD; Yao CJ; Chang PY; Chen TL; Chang HY; Cheng AL; Lai GM; Chuang SE

INSTITUCIÓN / INSTITUTION: - Department of Urology, Wan Fang Hospital, Taipei Medical University, Taipei, Taiwan, R.O.C.

RESUMEN / SUMMARY: - Methotrexate (MTX) has been widely used for the treatment of cancer and rheumatoid arthritis (RA). Aspirin (ASA) is a non-selective cyclooxygenase (COX) inhibitor that contributes to the treatment of inflammatory conditions such as RA. It has been observed that the antitumor effect of ASA can be attributed to inhibition of cell cycle progression, induction of apoptosis and inhibition of angiogenesis. In the present study, we revealed that the treatment with a combination of MTX and ASA resulted in antagonism of the cytotoxic effect as demonstrated by SRB and colony formation assays. ASA alleviated the MTX-mediated S phase accumulation and recovered the G1 phase. MTX-mediated accumulation of the S phase marker cyclin A was also alleviated by ASA. Notably, FAS protein levels were upregulated by MTX in A549 cells. The antagonism of MTX efficacy caused by ASA was accompanied by altered expression of caspase-3, Bcl-2 and FAS but not dihydrofolate reductase (DHFR). This suggests that the alteration of caspase-3, Bcl-2 and FAS was involved in the antagonism between ASA and MTX. Exogenously added folic acid reversed the MTX-mediated DHFR inhibition following either MTX or MTX + ASA treatments. Most importantly, we demonstrated for the first time that the commonly used non-steroidal anti-inflammatory drug for headache

ASA and possibly other COX-1/2 inhibitors can produce a strong antagonistic effect on the growth inhibition of lung cancer cells when administered in combination with MTX. The clinical implication of our finding is obvious, i.e., the clinical efficacy of MTX therapy can be compromised by ASA and their concomitant use should be avoided.

[293]

TÍTULO / TITLE: - Polycyclic Aromatic Hydrocarbon-induced Oxidative Stress, Antioxidant Capacity, and the Risk of Lung Cancer: A Pilot Nested Case-control Study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Aug;33(8):3089-97.

AUTORES / AUTHORS: - Eom SY; Yim DH; Moon SI; Youn JW; Kwon HJ; Oh HC; Yang JJ; Park SK; Yoo KY; Kim HS; Lee KS; Chang SH; Kim YD; Kang JW; Kim H

INSTITUCIÓN / INSTITUTION: - Department of Preventive Medicine and Medical Research Institute, College of Medicine, Chungbuk National University, 52 Naesudong-ro, Heungdok-gu, Cheongju 361-763, Korea. kimheon@cbu.ac.kr.

RESUMEN / SUMMARY: - Aim: We conducted a pilot nested case-control study to prospectively evaluate the effects of polycyclic aromatic hydrocarbons (PAH) exposure, antioxidant capacity, and oxidative stress on lung carcinogenesis. MATERIALS AND METHODS: Thirty-five patients with lung cancer and 140 age- and sex-matched controls were selected from a sub-cohort of the Korean Multi-center Cancer Cohort. PAH metabolites (1-hydroxypyrene and 2-naphthol), oxidative stress markers, and total antioxidant capacity (TAC) were assessed using urine samples collected at baseline. RESULTS: The levels of urinary PAH metabolites and oxidative stress were not different between cases and controls. Urinary 1-hydroxypyrene and 2-naphthol levels were significantly associated with urinary oxidative stress markers only in lung cancer cases. Individuals with low urinary TAC and high urinary oxidative stress levels had significantly higher risk of lung cancer compared to those with high urinary TAC and low urinary oxidative stress levels. CONCLUSION: Oxidative stress induced by PAH exposure and TAC may be important determinants for the susceptibility to lung cancer.

[294]

TÍTULO / TITLE: - The contribution of DNA apurinic/aprimidinic endonuclease genotype and smoking habit to Taiwan lung cancer risk.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Jun;33(6):2775-8.

AUTORES / AUTHORS: - Chen WC; Tsai CW; Hsia TC; Chang WS; Lin LY; Liang SJ; Tu CY; Cheng WE; Chen HJ; Wang SM; Bau dT

INSTITUCIÓN / INSTITUTION: - Department of Internal Medicine, China Medical University Hospital, Taichung, Taiwan, ROC.

RESUMEN / SUMMARY: - To evaluate the association and interaction of genotypic polymorphism the gene for DNA-apurinic/aprimidinic endonuclease (APEX1) with personal smoking habit and lung cancer risk in Taiwan, the polymorphic variants of APEX1, Asp(148)Glu (rs1130409), were analyzed in association with lung cancer risk, and their joint effect with personal smoking habits on lung cancer susceptibility was discussed. In this hospital-based case-control study, 358 patients with lung cancer and 716 cancer-free controls, frequency-matched by age and sex, were recruited and genotyped by polymerase chain reaction and restriction fragment length polymorphism (PCR-RFLP). The results showed that the percentages of TT, TG and GG APEX1 Asp(148)Glu genotypes were not significantly different at 43.0%, 41.1% and 15.9% in the lung cancer patient group and 39.9%, 46.1% and 14.0% in non-cancer control group, respectively. We further analyzed the genetic-lifestyle effects on lung cancer risk and found the contribution of APEX1 Asp(148)Glu genotypes to lung cancer susceptibility was neither enhanced in the cigarette smokers nor in the non-smokers ($p=0.3550$ and 0.8019 , respectively). Our results provide evidence that the non-synonymous polymorphism of APEX1 Asp(148)Glu may not be directly associated with lung cancer risk, nor enhance the effects of smoking habit on lung cancer development.

[295]

TÍTULO / TITLE: - Poor self-rated health associated with an increased risk of subsequent development of lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Qual Life Res. 2013 Jun 17.

●● Enlace al texto completo (gratis o de pago) [1007/s11136-013-0453-](#)

[2](#)

AUTORES / AUTHORS: - Riise HK; Riise T; Natvig GK; Daltveit AK

INSTITUCIÓN / INSTITUTION: - Department of Global Public Health and Primary Care, University of Bergen, Postbox 7804, 5020, Bergen, Norway, hildekriise@hotmail.com.

RESUMEN / SUMMARY: - PURPOSE: Self-rated health has shown to be a strong predictor of mortality and some major chronic diseases. The purpose of this study was to investigate whether poor self-rated health also was related to an increased risk of subsequent development of cancer. METHODS: Information on self-rated health, life-style factors, and other health-related risk factors was ascertained in a cohort of 25,532 persons participating in the Hordaland Health Study in 1997-1999. Information on development of cancer during 10 years of follow-up was obtained from the Norwegian Cancer Registry. The relationship between self-rated health and development of cancer was examined using Cox regression analysis adjusting for smoking and other life-style factors.

RESULTS: Respondents reporting a poor health showed a non-significant increased risk of overall cancer. Sub-analysis of the four most common types of cancer showed a statistically significant association between self-rated health and lung cancer. The adjusted hazard ratio was 3.88 (95 % CI; 0.99, 15.8) for those rating their health as poor compared to very good (p for trend = 0.038). For the other types of cancer, we found a non-significant elevated risk associated with poor self-rated health. CONCLUSION: Respondents who perceive their health as poor had an increased risk of developing lung cancer also after adjusting for smoking. This suggests that self-rated health reflects a broad range of factors important for development of this cancer type. Nevertheless, due to the explorative analysis of the specific cancer types, these findings need to be repeated before elaborate interpretations can be made.

[296]

TÍTULO / TITLE: - The first case of lung carcinosarcoma harboring in-frame deletions at exon19 in the EGFR gene.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 25. pii: S0169-5002(13)00270-5. doi: 10.1016/j.lungcan.2013.06.013.

●● Enlace al texto completo (gratis o de pago)

1016/j.lungcan.2013.06.013

AUTORES / AUTHORS: - Toyokawa G; Takenoyama M; Taguchi K; Arakaki K; Inamasu E; Toyozawa R; Kojo M; Shiraishi Y; Morodomi Y; Takenaka T; Hirai F; Yamaguchi M; Seto T; Leone A; Graziano P; Ichinose Y

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Oncology, National Kyushu Cancer Center, 3-1-1 Notame, Minami-ku, Fukuoka 811-1395, Japan.

RESUMEN / SUMMARY: - Mutations of the epidermal growth factor receptor (EGFR) gene play a critical role in carcinogenesis of lung cancer, particularly adenocarcinoma. However, to the best of our knowledge, no mutations of the EGFR in patients with lung carcinosarcoma have been identified. We herein report the case of a 61-year-old female referred for a detailed examination of a left pulmonary mass shadow. Although bronchoscopy was performed, it failed to lead to a diagnosis, and video-assisted thoracoscopic surgery was therefore carried out to diagnose the tumor. The pathology revealed biphasic features consisting of both adenocarcinoma and chondrosarcoma. Intriguingly, both the adenocarcinoma and chondrosarcoma components were proven to harbor an exon19 deletion in the EGFR gene. Although carcinosarcoma is a rare malignancy of the lungs, genetic analyses of oncogenic drivers, such as the EGFR gene, should be conducted.

[297]

TÍTULO / TITLE: - An extremely rare case of small-cell lung cancer harboring variant 2 of the EML4-ALK fusion gene.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jun 17. pii: S0169-5002(13)00255-9. doi: 10.1016/j.lungcan.2013.05.022.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.022](#)

AUTORES / AUTHORS: - Toyokawa G; Takenoyama M; Taguchi K; Toyozawa R; Inamasu E; Kojo M; Shiraishi Y; Morodomi Y; Takenaka T; Hirai F; Yamaguchi M; Seto T; Shimokawa M; Ichinose Y

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Oncology, National Kyushu Cancer Center, 3-1-1 Notame, Minami-ku, Fukuoka 811-1395, Japan.

RESUMEN / SUMMARY: - Anaplastic lymphoma kinase (ALK) fuses echinoderm microtubule-associated protein-like 4 (EML4) to acquire a transforming activity in lung adenocarcinomas. However, the presence of an EML4-ALK fusion gene in other lung cancer histologies is an extremely rare phenomenon. A 43-year-old female was referred to our department due to dyspnea on effort and left back pain. Computed tomography (CT) showed a large mass in the upper lobe of the left lung and a massive left pleural effusion, while a CT-guided needle biopsy confirmed a diagnosis of small-cell lung cancer (SCLC). Surprisingly, the tumor was genetically considered to harbor the EML4-ALK fusion gene (variant 2). Although the patient underwent two regimens of cytotoxic chemotherapy for SCLC, she died approximately seven months after the administration of first-line chemotherapy. Our analysis of 30 consecutive patients with SCLC for EML4-ALK revealed that two patients, including the current patient and a patient we previously reported, harbored the EML4-ALK fusion gene.

[298]

TÍTULO / TITLE: - Diagnostic and prognostic significance of survivin levels in malignant pleural effusion.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Respir Med. 2013 Aug;107(8):1260-5. doi: 10.1016/j.rmed.2013.04.011. Epub 2013 Jun 18.

●● Enlace al texto completo (gratis o de pago)

[1016/j.rmed.2013.04.011](#)

AUTORES / AUTHORS: - Gorgun D; Secik F; Midilli K; Akkaya V; Yildiz P

INSTITUCIÓN / INSTITUTION: - Yedikule Chest Disease and Surgery Training and Research Hospital, Istanbul, Turkey.

RESUMEN / SUMMARY: - We aimed to evaluate the diagnostic and prognostic value of measuring survivin levels, which is an inhibitor of apoptosis in pleural effusions. Methods: Group I, malignant (MPE) (n = 51); Group II, tuberculosis (TPE) (n = 18); Group III transudative (TE) (n = 9) effusions were enrolled prospectively. We used ELISA to analyze 78 effusions. The value for the

differential diagnosis and the correlation between survivin and survival in MPE were analyzed. Results: Survivin level was 41.75 +/- 76.20 in MPE, 15.83 +/- 10.92 in TPE and 8.33 +/- 8.67 in TE. When the patients divided two groups as malignant and non-malignant pleural effusion (non-MPE), survivin level was significantly higher in MPE (41.75 +/- 76.20) than in non-MPE (13.33 +/- 2.05) (p = 0.012). The cutoff value for survivin levels detected by ROC curve analysis was 7.5 pg/ml, with sensitivity and specificity values of 72%, 44%, respectively. Survivin had no discriminative power in differentiating exudative effusions of MPE from TPE (p = 0.405). There was no correlation between survivin level and age, sex, location, fluid pH, glucose, protein, albumine and ADA level while there was significant moderate correlation with fluid LDH (r = 0.49; p < 0.001). Survivin levels can distinguish patients who had poor prognosis (median survival 75 days, n = 24) and those who had good prognosis (median survival 219 days, n = 27, p = 0.03) in MPE. In conclusion, survivin expression levels detected with ELISA had no discriminative power in differentiating exudative effusions included MPE and TPE. Elevated survivin levels are associated with poor survival in MPE. Our results suggest that survivin may be a potential prognostic marker in MPE.

[299]

TÍTULO / TITLE: - Pulmonary tumor thrombotic microangiopathy: a clinical analysis of 30 autopsy cases.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Intern Med. 2013;52(12):1317-23.

AUTORES / AUTHORS: - Uruga H; Fujii T; Kurosaki A; Hanada S; Takaya H; Miyamoto A; Morokawa N; Homma S; Kishi K

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Respiratory Center, Toranomon Hospital, Japan. uruga.hironori@gmail.com

RESUMEN / SUMMARY: - **OBJECTIVE:** Pulmonary tumor thrombotic microangiopathy (PTTM) is a unique, rare and fatal form of pulmonary arterial tumor embolism. The aim of this study was to evaluate the clinical characteristics and pathological and immunohistochemical findings of PTTM. **METHODS:** Autopsy records dated between January 1983 and May 2008 in our hospital were reviewed, and those of patients who died from pulmonary tumor embolism resulting from malignant neoplasm were retrieved. The relevant tissue slides were reevaluated and examined immunohistochemically to confirm the diagnosis. **RESULTS:** Among 2,215 consecutive autopsy cases of carcinoma, 30 patients (1.4%) were diagnosed with definitive PTTM. The common symptom was progressive dyspnea. A hypercoagulable state was observed in all measured cases (n = 21). The chest computed tomography findings (n = 6) included consolidation, ground-glass opacity, small nodules and a tree-in-bud appearance. Perfusion scans were performed in seven patients, six of whom demonstrated multiple small defects. The median survival

time after the initiation of oxygen supplementation was nine days. The most frequent primary site was the stomach (n = 18 ; 60%) , and the most frequent histological type was adenocarcinoma (28/30 ; 93.3%) . The immunohistochemical findings for tumor cells located within the tumor emboli were positive for vascular endothelial growth factor (28/29 ; 96.6%) and tissue factor (29/29 ; 100%). CONCLUSION: Clinicians should suspect PTTM in cancer patients who exhibit acute worsening respiratory insufficiency accompanied by a hypercoagulative state without embolism in major pulmonary arteries. The PTTM patients evaluated in our study had very poor prognoses. Vascular endothelial growth factor and tissue factor may play important roles in PTTM.

[300]

TÍTULO / TITLE: - Effects of artonin e on migration and invasion capabilities of human lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Aug;33(8):3079-88.

AUTORES / AUTHORS: - Plaibua K; Pongrakhananon V; Chunhacha P; Sritularak B; Chanvorachote P

INSTITUCIÓN / INSTITUTION: - Departments of Pharmacology and Physiology, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Phatumwan, Bangkok, Thailand 10330. pithi_chan@yahoo.com, pithi.c@chula.ac.th.

RESUMEN / SUMMARY: - BACKGROUND: Knowledge regarding substances that attenuate motility of cancer cells has gathered significant attention, as they benefit the development of novel anticancer strategies. The anti-migration and anti-invasion activities of artonin E, extracted from bark of *Artocarpus gomezianus*, were investigated in lung cancer cells in this study. MATERIALS AND METHODS: Cytotoxicity and antiproliferative effects of artonin E were examined by 3- (4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay. Migration and invasion assays were performed on H460, H23, A549 and H292 human lung cancer cells. Cell morphology was determined by phalloidin-rhodamine staining. Motility-related proteins were investigated by western blotting. RESULTS: Artonin E exhibited anti-migration and anti-invasion activities in H460 cells. Cell morphology revealed that treatment of the cells with non-toxic concentrations of artonin E resulted in a decrease of activated focal adhesion kinase (FAK), downstream protein kinase B (AKT) activation, and Cell division cycle-42 (CDC42), all of which were associated with the anti-motility effect of this compound. Artonin E inhibited invasion and migration of other lung cancer cells, namely H292, H23 and A549 cells. CONCLUSION: These results suggest that artonin E may be a promising candidate for anti-metastasis use.

[301]

TÍTULO / TITLE: - Treatment and detection of ALK-rearranged NSCLC.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Aug;81(2):145-54. doi: 10.1016/j.lungcan.2013.03.017. Epub 2013 Jun 12.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.03.017](#)

AUTORES / AUTHORS: - Peters S; Taron M; Bubendorf L; Blackhall F; Stahel R

INSTITUCIÓN / INSTITUTION: - Department of Oncology, University Hospital of Vaudois (CHUV), Lausanne, Switzerland.

RESUMEN / SUMMARY: - The recent approval of crizotinib for the treatment of anaplastic lymphoma kinase (ALK)-rearranged advanced non-small cell lung cancer (NSCLC) in the US and other countries has provoked intense interest in ALK rearrangements as oncogenic drivers, and promises to revolutionise the way in which NSCLC is diagnosed and treated. Here, we review clinical data to date for the use of crizotinib to treat patients with advanced, ALK-positive NSCLC and consider issues surrounding the detection of ALK-positivity including the use of fluorescence in situ hybridisation and the other potential techniques available, and their suitability for ALK screening. We also discuss the emergence of resistance to crizotinib therapy and the range of other ALK inhibitors currently in development.

[302]

TÍTULO / TITLE: - Comparison of the Time-to-response Between Radiotherapy and Epidermal Growth Factor Receptor - Tyrosine Kinase Inhibitors for Advanced Non-small Cell Lung Cancer with EGFR Mutation.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Aug;33(8):3279-84.

AUTORES / AUTHORS: - Imai H; Shukuya T; Takahashi T; Fujiwara S; Mori K; Ono A; Akamatsu H; Taira T; Kenmotsu H; Naito T; Kaira K; Murakami H; Harada H; Endo M; Nakajima T; Yamamoto N

INSTITUCIÓN / INSTITUTION: - Shizuoka Cancer Center, 1007 Shimonagakubo, Nagaizumi-chou, Suntou-gun, Shizuoka 411-8777, Japan. Tel: +81 559895222, m06701014@gunma-u.ac.jp.

RESUMEN / SUMMARY: - BACKGROUND: Patients harboring sensitive epidermal growth factor receptor (EGFR) mutations show a dramatic response to treatment with EGFR tyrosine kinase inhibitors (TKIs). However, there have been no clinical reports in lung cancer patients that compare the time-to-response between radiotherapy and EGFR-TKIs. PATIENTS AND METHODS: We reviewed 17 and 32 consecutive patients with inoperable stage III/IV NSCLC who harbored sensitive EGFR mutations and who were treated with thoracic radiotherapy with or without chemotherapy and EGFR-TKIs, respectively. RESULTS: There were statistically significant differences in time-to-partial response (PR) with regard to the treatment modalities (radiotherapy

vs. EGFR-TKIs, median 57 days vs. 22 days, log-rank test, $p=0.008$).
CONCLUSION: EGFR-TKIs elicit tumor shrinkage earlier than does radiotherapy in patients with a sensitive EGFR mutation, suggesting that EGFR-TKIs may be useful for early symptom improvement in these patients.

[303]

TÍTULO / TITLE: - Emerging toxicities in the treatment of non-small cell lung cancer: Ocular disorders.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Treat Rev. 2013 Jul 10. pii: S0305-7372(13)00097-2. doi: 10.1016/j.ctrv.2013.05.005.

●● Enlace al texto completo (gratis o de pago) 1016/j.ctrv.2013.05.005

AUTORES / AUTHORS: - Agustoni F; Platania M; Vitali M; Zilembo N; Haspinger E; Sinno V; Gallucci R; de Braud F; Garassino MC

INSTITUCIÓN / INSTITUTION: - Medical Oncology Department, Fondazione IRCCS Istituto Nazionale dei Tumori, Milano, Italy.

RESUMEN / SUMMARY: - The treatment of advanced disease (stage IIIb and IV) of non-small cell lung cancer (NSCLC) is based on systemic treatment with platinum-based chemotherapy or biological compounds depending on the disease molecular profile. In the last few years, intensive investigational efforts in anticancer therapy have led to the registration of new active chemotherapeutic agents, combination regimens, and biological drugs, expanding choices for customizing individual treatment. However, the introduction of new drugs in the clinical setting has led to several new toxicities, creating some difficulties in daily management. Among these, ocular toxicity is generally overlooked as more common toxicities such as myelosuppression, stomatitis, diarrhea, vomiting, “hand-foot syndrome”, and neurological alterations attract greater attention. Ophthalmic complications from cytotoxic chemotherapeutics are rare, transient, and of mild/moderate intensity but irreversible acute disorders are possible. The best way to prevent potential irreversible visual complications is an awareness of the potential for ocular toxicity because dose reductions or early drug cessation can prevent serious ocular complications in the majority of cases. However, given the novelty of many therapeutic agents and the complexity of ocular pathology, oncologists may be unfamiliar with these adverse effects of anticancer therapy. Although toxicities from chemotherapy are generally intense but short lasting, toxicities related to targeted drugs are often milder but longer lasting and can persist throughout treatment. Here we review the principal clinical presentations of ocular toxicity arising from chemotherapy [1-3], target therapies [4], and newly developed drugs and provide some recommendations for monitoring and management of ocular toxicity.

[304]

TÍTULO / TITLE: - Tumor suppressor in lung cancer 1 (TSLC1), a novel tumor suppressor gene, is implicated in the regulation of proliferation, invasion, cell cycle, apoptosis, and tumorigenicity in cutaneous squamous cell carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumour Biol. 2013 Jun 30.

●● Enlace al texto completo (gratis o de pago) [1007/s13277-013-0961-](#)

[2](#)

AUTORES / AUTHORS: - Liu D; Feng X; Wu X; Li Z; Wang W; Tao Y; Xia Y

INSTITUCIÓN / INSTITUTION: - Department of Dermatology, the First Affiliated Hospital of Xinxiang Medical University, No. 88, Health Road, Weihui, Henan, 453100, China.

RESUMEN / SUMMARY: - Tumor suppressor in lung cancer 1 (TSLC1) is tightly implicated in a variety of biological processes and plays critical roles in tumor development and progression. However, the roles of TSLC1 in cutaneous squamous cell carcinoma (CSCC) remain to be unraveled. Here, we reported the TSLC1 gene that was significantly downregulated in CSCC tissues and cells, and survival times of patients with TSLC1 at a low level were markedly lower than that at a high level ($P = 0.0070$). A stepwise investigation demonstrated that an elevated TSLC1 level evoked obvious proliferation and invasion inhibitions and arrested cell cycle at G0/G1 phase in A431 cells. Moreover, increase of caspase-3 activity mediated by elevated TSLC1 level induced cell apoptosis in A431 cells. Most notably, upregulation of TSLC1 expression reduced the numbers of colony formation and tumorigenicity. Collectively, our results presented herein suggest that TSLC1 as tumor suppressor may play prominent roles in development and progression of CSCC via regulation of different biological processes.

[305]

TÍTULO / TITLE: - ROS1 Immunohistochemistry for Detection of ROS1-Rearranged Lung Adenocarcinomas.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Surg Pathol. 2013 Jul 24.

●● Enlace al texto completo (gratis o de pago)

[1097/PAS.0b013e3182960fa7](#)

AUTORES / AUTHORS: - Sholl LM; Sun H; Butaney M; Zhang C; Lee C; Janne PA; Rodig SJ

INSTITUCIÓN / INSTITUTION: - *Department of Pathology, Brigham and Women's Hospital daggerLowe Center for Thoracic Oncology double daggerBelfer Institute for Applied Cancer Science, Dana Farber Cancer Institute, Boston, MA.

RESUMEN / SUMMARY: - ROS1 gene rearrangements are reported in 1% to 2% of lung adenocarcinomas (ACAs) and are associated with response to the

multitargeted tyrosine kinase inhibitor crizotinib. ROS1 rearrangements can be detected using fluorescence in situ hybridization (FISH); however, immunohistochemistry (IHC) for ROS1 protein is a promising alternate screening modality. In this study, we examine the correlation between ROS1 IHC and FISH and describe the clinicopathologic characteristics of ROS1-rearranged lung tumors. ROS1 IHC was performed using clone D4D6 on whole-tissue sections. In a validation cohort, IHC was compared with ROS1 break-apart FISH in 53 cases of lung ACA enriched for an absence of known genetic alterations and never-smoking status. In a screening cohort, we performed ROS1 IHC on 167 consecutive cases of lung ACA from a routine molecular diagnostic practice and confirmed positive results by FISH. In the validation cohort, 6 cases (11%) were both FISH and IHC positive. One FISH-negative case was strongly ROS1 IHC positive. All IHC-negative cases were FISH negative. In the screening cohort, 2 of 167 (1.2%) had strong, diffuse ROS1 protein expression; a rearrangement was confirmed by FISH in both. ROS1-translocated tumors were wild type for EGFR, KRAS, and ALK and commonly had solid growth with mucinous/cribriform features and psammomatous calcification. ROS1 protein expression in tumor cells is 100% sensitive and 92% specific for ROS1 rearrangements by FISH. ROS1 IHC is an effective screening tool for this rare but clinically important subset of lung ACAs.

[306]

TÍTULO / TITLE: - Lung cancer efforts need stronger emphasis on reducing radon exposure.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Public Health. 2013 Sep;103(9):e4. doi: 10.2105/AJPH.2013.301436. Epub 2013 Jul 18.

●● Enlace al texto completo (gratis o de pago)

[2105/AJPH.2013.301436](#)

AUTORES / AUTHORS: - Conrath SM; Pawel DJ

INSTITUCIÓN / INSTITUTION: - Susan M. Conrath is with the Indoor Environments Division and David J. Pawel is with the Radiation Protection Division, Environmental Protection Agency, Washington, DC.

[307]

TÍTULO / TITLE: - Genotoxicity of hydroquinone in A549 cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cell Biol Toxicol. 2013 Jun 8.

●● Enlace al texto completo (gratis o de pago) [1007/s10565-013-9247-](#)

[0](#)

AUTORES / AUTHORS: - Peng C; Arthur D; Liu F; Lee J; Xia Q; Lavin MF; Ng JC

INSTITUCIÓN / INSTITUTION: - National Research Centre for Environmental Toxicology-Entox, The University of Queensland, 39 Kessels Road, Coopers Plains, Brisbane, 4108, Australia.

RESUMEN / SUMMARY: - Hydroquinone (HQ) is found in natural and anthropogenic sources including food, cosmetics, cigarette smoke, and industrial products. In addition to ingestion and dermal absorption, human exposure to HQ may also occur by inhaling cigarette smoke or polluted air. The adverse effects of HQ on respiratory systems have been studied, but genotoxicity HQ on human lung cells is unclear. The aim of this study was to investigate the cytotoxicity and genotoxicity of HQ in human lung alveolar epithelial cells (A549). We found that HQ induced a dose response in cell growth inhibition and DNA damage which was associated with an increase in oxidative stress. Cytotoxicity results demonstrated that HQ was most toxic after 24 h (LC50 = 33 µM) and less toxic after 1 h exposure (LC50 = 59 µM). Genotoxicity of HQ was measured using the Comet assay, H2AX phosphorylation, and chromosome aberration formation. Results from the comet assay revealed that DNA damage was highest during the earlier hours of exposure (1 and 6 h) and thereafter was reduced. A similar pattern was observed for H2AX phosphorylation suggesting that damage DNA may be repaired in later exposure hours. An increase in chromosomal aberration corresponded with maximal DNA damage which further confirmed the genotoxic effects of HQ. To investigate whether oxidative stress was involved in the cytotoxic and genotoxic effects of HQ, cellular glutathione and 8-Oxo-deoguanisone (8-Oxo-dG) formation were measured. A decrease in the reduced glutathione (GSH) and an increase oxidized glutathione (GSSG) was observed during the early hours of exposure which corresponded with elevated 8-Oxo-dG adducts. Together these results demonstrate that HQ exerts its cytotoxic and genotoxic effects in A549 lung cells, probably through DNA damage via oxidative stress.

[308]

TÍTULO / TITLE: - Soluble ICAM-1 levels in small-cell lung cancer: prognostic value for survival and predictive significance for response during chemotherapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Med Oncol. 2013 Sep;30(3):662. doi: 10.1007/s12032-013-0662-0. Epub 2013 Jul 25.

●● Enlace al texto completo (gratis o de pago) [1007/s12032-013-0662-0](#)

AUTORES / AUTHORS: - Kotteas EA; Gkiozos I; Tsagakouli S; Bastas A; Ntanos I; Saif MW; Syrigos KN

INSTITUCIÓN / INSTITUTION: - Oncology Unit GPP, Sotiria General Hospital, Athens School of Medicine, 152, Mesogeion Av., 115 27, Athens, Greece.

RESUMEN / SUMMARY: - Intercellular adhesion molecule-1 (ICAM-1) is an adhesion molecule, member of the immunoglobulin gene superfamily that seems to participate in the evolution of the metastatic process. We investigated the significance of baseline soluble ICAM-1 levels on the outcome of patients with small-cell lung cancer and whether soluble ICAM-1 is a predictive marker for objective response during and after chemotherapy in patients with small-cell lung cancer. Fifty patients with recently diagnosed small-cell lung cancer, as well as 27 healthy smokers, were enrolled. Blood samples were collected at the time of diagnosis, during and at the end of chemotherapy. Data were correlated with the characteristics of the patients and survival as well as with ICAM-1 predictive role for objective response. Statistical significant values of baseline soluble ICAM between patients and controls ($p < 0.001$) were observed. Multivariate analysis revealed an elevated risk of death of 9 % in the first year after diagnosis for every 10 units of increased soluble ICAM-1 at the baseline ($p = 0.046$). Performance status and disease stage were also independent prognostic factors. Patients with extensive disease who achieved an objective response during chemotherapy showed a significant decrease (25.8 %) in their soluble ICAM-1 levels compared with baseline levels ($p = 0.001$). Alongside performance status and disease stage, baseline soluble ICAM-1 could be evaluated as an additional prognostic factor in patients with small-cell lung cancer. Also, a possible role for soluble ICAM-1 may exist as a predictive marker for objective response during chemotherapy for patients with extensive disease ($p = 0.001$).

[309]

TÍTULO / TITLE: - Pulmonary Large Cell Carcinoma Lacking Squamous Differentiation Is Clinicopathologically Indistinguishable From Solid-Subtype Adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Arch Pathol Lab Med. 2013 Jun 5.

- Enlace al texto completo (gratis o de pago) [5858/arpa.2013-0179-OA](https://doi.org/10.5858/arpa.2013-0179-OA)

[OA](#)

AUTORES / AUTHORS: - Hwang DH; Szeto DP; Perry AS; Bruce JL; Sholl LM

INSTITUCIÓN / INSTITUTION: - From the Department of Pathology (Drs Hwang, Bruce, and Sholl and Mr Szeto) and.

RESUMEN / SUMMARY: - Context.-Pulmonary large cell carcinoma (LCC) includes tumors not readily diagnosed as adenocarcinoma (ADC) or squamous cell carcinoma on morphologic grounds, without regard to immunophenotype, according to the World Health Organization (WHO). This ambiguous designation may cause confusion over selection of mutation testing and directed therapies. Several groups have proposed the use of immunohistochemistry (IHC) to recategorize LCC as ADC or squamous cell carcinoma; however, it remains unclear if strictly defined LCCs are a

clinicopathologically distinct lung tumor subset. Objective.-To compare the pathologic, molecular, and clinical features of 2 morphologically similar tumors: solid-subtype ADC and LCC. Design.-Tumors were included on the basis of solid growth pattern; tumors with squamous or neuroendocrine differentiation were excluded. Solid ADC (n = 42) and LCC (n = 57) were diagnosed by using WHO criteria (5 intracellular mucin droplets in ≥ 2 high-power fields for solid ADC) and tested for KRAS, EGFR, and ALK alterations. Results.-Both solid ADC and LCC groups were dominated by tumors with “undifferentiated”-type morphology and both had a high frequency of thyroid transcription factor 1 expression. KRAS was mutated in 38% of solid ADCs versus 43% of LCCs (P = .62). One ALK-rearranged and 1 EGFR-mutated tumor were detected in the solid ADC and LCC groups, respectively. There were no significant differences in clinical features or outcomes; the prevalence of smoking in both groups was greater than 95%. Conclusions.-Other than a paucity of intracellular mucin, LCC lacking squamous or neuroendocrine differentiation is indistinguishable from solid-subtype ADC. We propose the reclassification of these tumors as mucin-poor solid adenocarcinomas.

[310]

TÍTULO / TITLE: - HepPar-1 Expression in Primary Lung Adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Clin Pathol. 2013 Aug;140(2):225-30. doi: 10.1309/AJCP4MXTNQRVOE2T.

●● Enlace al texto completo (gratis o de pago)

[1309/AJCP4MXTNQRVOE2T](#)

AUTORES / AUTHORS: - Yousem SA; Lale S; Dacic S

INSTITUCIÓN / INSTITUTION: - Dept. of Pathology, UPMC Presbyterian Shadyside, Presbyterian Campus-A610, 200 Lothrop St, Pittsburgh, PA 15213-2582; e-mail: yousemsa@upmc.edu.

RESUMEN / SUMMARY: - Objectives: To study a subset of lung adenocarcinomas with aberrant HepPar-1 antigen expression. Methods: We performed a clinicopathologic review of 16 cases. Results: Of 241 primary lung adenocarcinomas tested for expression of the HepPar-1 antigen, 16 (6.6%) were positive. The cases occurred in older smokers with an equal sex distribution. Morphologically, these pulmonary adenocarcinomas had an acinar-predominant architecture, and prominent cribriform growth, with HepPar-1-expressing tumor cells being uniformly columnar with abundant bipolar lightly eosinophilic cytoplasm. HepPar-1 was coexpressed with thyroid transcription factor 1 in 94% of cases. No EGFR mutations were identified, while 31% of cases were positive for KRAS codon 12 mutations. Conclusions: Although aberrant HepPar-1 expression was frequently seen in tumors with visceral pleural and angiolymphatic invasion, its prognostic significance is uncertain.

[311]

TÍTULO / TITLE: - Long non-coding RNA metastasis associated in lung adenocarcinoma transcript 1 derived miniRNA as a novel plasma-based biomarker for diagnosing prostate cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cancer. 2013 Sep;49(13):2949-59. doi: 10.1016/j.ejca.2013.04.026. Epub 2013 May 28.

●● Enlace al texto completo (gratis o de pago) [1016/j.ejca.2013.04.026](#)

AUTORES / AUTHORS: - Ren S; Wang F; Shen J; Sun Y; Xu W; Lu J; Wei M; Xu C; Wu C; Zhang Z; Gao X; Liu Z; Hou J; Huang J; Sun Y

INSTITUCIÓN / INSTITUTION: - Department of Urology, Shanghai Changhai Hospital, Second Military Medical University, Shanghai, China. Electronic address: renshancheng@gmail.com.

RESUMEN / SUMMARY: - Examining plasma RNA is an emerging non-invasive diagnosis technique. However, whether tumour-derived long non-coding RNAs (lncRNAs) in plasma can be used as a novel approach to detect human prostate cancer (PCa) has not yet been established. The study was divided into three parts: (1) the characteristics of PCa-related lncRNA fragments were systematically studied in the plasma or serum of 25 patients; (2) the source of the circulating lncRNA fragments was explored in vitro and in vivo; and (3) the diagnostic performance of metastasis associated in lung adenocarcinoma transcript 1 (MALAT-1) derived (MD) miniRNA was validated in an independent cohort of 192 patients. The expression levels of lncRNAs were measured by quantitative real time polymerase chain reaction (qRT-PCR). The MD-miniRNA copies were calculated using a standard curve in an area under the ROC curve (AUC)-receiver operating characteristic (ROC) analysis. Genome-wide profiling revealed that MALAT-1 and prostate cancer gene 3 (PCA3) are overexpressed in PCa tissues. Plasma lncRNAs probably exist in the form of fragments in a stable form. MD-miniRNA enters cell culture medium at measurable levels, and MD-miniRNA derived from human PCa xenografts actually enters the circulation in vivo and can be measured to distinguish xenografted mice from controls. In addition, plasma MD-miniRNA levels are significantly elevated in PCa patients compared to non-PCa patients ($p < 0.001$). At a cut-off of 867.8 MD-miniRNA copies per microlitre of plasma, the sensitivity is 58.6%, 58.6% and 43.5% and the specificity is 84.8%, 84.8% and 81.6% for discriminating PCa from non-PCa, positive biopsy from negative biopsy and positive biopsy from negative biopsy, respectively. We conclude that MD-miniRNA can be used as a novel plasma-based biomarker for PCa detection and can improve diagnostic accuracy by predicting prostate biopsy outcomes. Further large-scale studies are needed to confirm our findings.

[312]

TÍTULO / TITLE: - Prognostic factors after complete resection of pN2 non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Cardiovasc Surg. 2013 Jun 27. pii: S0022-5223(13)00560-6. doi: 10.1016/j.jtcvs.2013.04.043.

●● [Enlace al texto completo \(gratis o de pago\)](#)

1016/j.jtcvs.2013.04.043

AUTORES / AUTHORS: - Sonobe M; Date H; Wada H; Okubo K; Hamakawa H; Teramukai S; Matsumura A; Nakagawa T; Sumitomo SI; Miyamoto Y; Okumura N; Takeo S; Kawakami K; Aoki M; Kosaka S

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Kyoto University Hospital, Kyoto.

RESUMEN / SUMMARY: - **OBJECTIVES:** This retrospective, multicenter study aimed to determine prognostic factors of completely resected pathologic N2 stage IIIA non-small cell cancer (NSCLC). **METHODS:** From 25 participating hospitals, 496 patients (325 men and 171 women; median age, 65 years) who underwent complete resection without preoperative treatment for pT1-3 N2 M0, stage IIIA NSCLC between 2000 and 2004 were enrolled. Lobectomy/bilobectomy was performed in 462 patients and pneumonectomy in 34. Some kind of adjuvant chemotherapy was administered to 296 patients. Survivals were calculated using the Kaplan-Meier method, and prognostic factors were determined using the Cox proportional hazards model. **RESULTS:** Five-year overall survival (OS) and disease-free survival (DFS) were 44.8% and 24.2%, respectively. pT classification (hazard ratio (HR), pT1/pT2/pT3 = 1/1.32/2.03), single or multiple N2 metastases (HR, single/multiple = 1/1.36), and skip or nonskip N2 metastasis (HR, skip/nonskip = 1/1.30) were found to be independent prognostic factors for DFS. Sex (HR, female/male = 1/1.36), performance status (HR, PS-0/PS-1 = 1/1.37), tumor diameter (HR, 1.12 per 1-cm increase), pT-factor (HR, pT1/pT2/pT3 = 1/1.37/2.22), and extent of N2 metastasis (HR, localized/extended = 1/1.39) were shown to be independent prognostic factors for OS. **CONCLUSIONS:** We found that pT classification was a significant prognostic indicator for OS and DFS whereas tumor diameter, performance status, and sex were ones for OS. Single N2 metastasis and skip N2 metastasis were demonstrated as favorable prognostic factors for DFS, limited N2 metastasis was one for OS, and these should be considered as stratification factors for trial on adjuvant therapy.

[313]

TÍTULO / TITLE: - Reply: Comment on 'Estimating the asbestos-related lung cancer burden from mesothelioma mortality'.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Br J Cancer. 2013 Aug 6;109(3):825-6. doi: 10.1038/bjc.2013.302. Epub 2013 Jun 27.

●● Enlace al texto completo (gratis o de pago) [1038/bjc.2013.302](https://doi.org/10.1038/bjc.2013.302)

AUTORES / AUTHORS: - McCormack V; Peto J; Byrnes G; Straif K; Boffetta P

INSTITUCIÓN / INSTITUTION: - International Agency for Research on Cancer, 150 cours Albert Thomas, Lyon 69008, France.

[314]

TÍTULO / TITLE: - Long-Term Survival After Lobectomy for Non-Small Cell Lung Cancer by Video-Assisted Thoracic Surgery Versus Thoracotomy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Thorac Surg. 2013 Jul 15. pii: S0003-4975(13)01003-5. doi: 10.1016/j.athoracsur.2013.04.104.

●● Enlace al texto completo (gratis o de pago)

[1016/j.athoracsur.2013.04.104](https://doi.org/10.1016/j.athoracsur.2013.04.104)

AUTORES / AUTHORS: - Lee PC; Nasar A; Port JL; Paul S; Stiles B; Chiu YL; Andrews WG; Altorki NK

INSTITUCIÓN / INSTITUTION: - Division of Thoracic Surgery, Department of Cardiothoracic Surgery, New York Presbyterian Hospital, Weill Cornell Medical College, New York, New York. Electronic address: pc19001@med.cornell.edu.

RESUMEN / SUMMARY: - BACKGROUND: Video-assisted thoracic surgery (VATS) lobectomy for non-small cell lung cancer (NSCLC) is increasingly popular. However, the oncologic soundness of VATS for patients with NSCLC as measured by long-term survival has not been proven. The objective here is to determine the overall survival (OS) and disease-free survival (DFS) in two well-matched groups of patients with NSCLC resected by VATS or thoracotomy. METHODS: We conducted a retrospective review of a prospective database to identify patients who had a lobectomy for NSCLC. A propensity score-matched analysis was done with variables of age, sex, smoking history, Charlson comorbidity index, forced expiratory volume in 1 second, lung diffusing capacity for carbon monoxide, histology, and clinical T and N status. Medical records were reviewed and survival was analyzed. RESULTS: After matching, there were 208 patients in each group. Patient and tumor characteristics were similar. The VATS group had a shorter length of stay. More nodes (14.3 versus 11.3; $p = 0.001$) and more nodal stations (3.8 versus 3.1; $p < 0.001$) were removed by thoracotomy. No differences were seen in OS and DFS. Median follow-up was 36 months. More than 90% of patients had clinical stage I disease, with 3- and 5-year OS of 87.4% and 76.5%, respectively, for VATS, and 81.6% and 77.5%, respectively, for thoracotomy ($p = 0.672$). Both the incidence and distribution of recurrence were similar. Multivariate Cox regression analyses of OS and DFS confirmed the noninferiority of VATS. CONCLUSIONS: For patients with clinical stage I NSCLC, VATS lobectomy offered similar OS and DFS compared with thoracotomy. Thoracotomy offers a more thorough lymph node evaluation, and may be appropriate for patients with more advanced clinical disease.

[315]

TÍTULO / TITLE: - Integrated and mutated forms of Merkel cell polyomavirus in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Br J Cancer. 2013 Jun 25;108(12):2624. doi: 10.1038/bjc.2013.196. Epub 2013 Jun 4.

●● Enlace al texto completo (gratis o de pago) [1038/bjc.2013.196](#)

AUTORES / AUTHORS: - Hashida Y; Imajoh M; Daibata M

INSTITUCIÓN / INSTITUTION: - Department of Microbiology and Infection, Kochi Medical School, Kochi University, Nankoku, Kochi 783-8505, Japan.

[316]

TÍTULO / TITLE: - Primary radiotherapy with endobronchial high-dose-rate brachytherapy boost for inoperable lung cancer: long-term results.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumori. 2013 Mar-Apr;99(2):183-90. doi: 10.1700/1283.14190.

●● Enlace al texto completo (gratis o de pago) [1700/1283.14190](#)

AUTORES / AUTHORS: - Rochet N; Hauswald H; Stoiber EM; Hensley FW; Becker HD; Debus J; Lindel K

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, University of Heidelberg, Heidelberg, Germany.

RESUMEN / SUMMARY: - BACKGROUND: To retrospectively evaluate the outcome of patients with inoperable non-small-cell lung cancer treated with primary external beam radiotherapy combined with high-dose-rate endobronchial brachytherapy boost. PATIENTS AND METHODS: Between 1988 and 2005, 35 patients with non-small-cell lung cancer (stage I-III) ineligible for surgical resection and/or chemotherapy, were primarily treated with external beam radiotherapy with a median total dose of 50 Gy (range, 46-60). A median of 3 fractions high-dose-rate endobronchial brachytherapy was applied as a boost after external beam radiotherapy, the median total dose was 15 Gy (range, 8-20). High-dose-rate endobronchial brachytherapy was carried out with iridium-192 sources (370 GBq) and prescribed to 1 cm distance from the source axis. RESULTS: With a median follow-up of 26 months from the first fraction of high-dose-rate endobronchial brachytherapy, the 1-, 2- and 5-year overall (local progression-free) survival rates were 76% (76%), 61% (57%) and 28% (42%), respectively. Complete or partial remission rates 6 to 8 weeks after treatment were 57% and 17%, respectively. Significant prognostic favorable factors were a complete remission 6-8 weeks after treatment and a negative nodal status. In patients without mediastinal node involvement, a long-term local control could be achieved with 56% 5-year local progression-free survival. Common Toxicity Criteria grade 3 toxicities were hemoptysis (n = 2) and necrosis (n = 1). One

fatal hemoptysis occurred in combination with a local tumor recurrence.
CONCLUSIONS: The combination of external beam radiotherapy with high-dose-rate endobronchial brachytherapy boost is an effective primary treatment with acceptable toxicity in patients with non-small-cell lung cancer ineligible for surgical resection and/or chemotherapy.

[317]

TÍTULO / TITLE: - Activation of ERK1/2 and Akt is associated with cisplatin resistance in human lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Chemother. 2013;25(3):162-9. doi: 10.1179/1973947812Y.0000000056.

●● Enlace al texto completo (gratis o de pago)

[1179/1973947812Y.0000000056](#)

AUTORES / AUTHORS: - Wang M; Liu ZM; Li XC; Yao YT; Yin ZX

INSTITUCIÓN / INSTITUTION: - The Affiliated Hospital of Medical College, QingDao University, China.

RESUMEN / SUMMARY: - Cisplatin is widely used for the treatment of solid tumours including small cell lung cancers, but its success is often compromised by relapse and resistance to further treatment. Extracellular signal-regulated kinase 1/2 (ERK1/2) and Akt are two major cell survival pathways that are upregulated and activated in lung cancer tissues. Phosphorylated ERK1/2 (p-ERK1/2) and Akt (p-Akt) can be further stimulated by chemotherapeutics in cancer cells. Although individually targeting the ERK1/2 or Akt pathway has been reported to sensitize cancer cells to therapy, the effect of concurrently blocking these two pathways on the sensitivity of lung cancer cells to cisplatin has not been investigated. In the present study, we aimed to determine whether the ERK1/2 and Akt pathways contribute to cisplatin resistance in human small cell lung cancer A549 cells. The results showed that cisplatin activates p-ERK1/2 and p-Akt in A549 cells. Blockade of either of these pathways with chemical inhibitors moderately sensitized A549 cells to cisplatin-induced apoptosis and reduced cell viability. Strikingly, concurrent inhibition of p-ERK1/2 and p-Akt significantly potentiated cisplatin cytotoxicity in vitro and in vivo. The sensitization of A549 cells to cisplatin cytotoxicity induced by p-Akt inhibition was mediated by the upregulation of PUMA, whereas that induced by p-ERK1/2 inhibition occurred by Bcl-2 downregulation. These data indicate that the cooperative effects of p-ERK1/2 and p-Akt on attenuating cisplatin cytotoxicity are mediated by PUMA and Bcl-2 regulation, and concurrently blocking these pathways may be an effective strategy for improving the efficacy of cisplatin as anticancer treatment.

[318]

TÍTULO / TITLE: - Low-fat diet management strategy for chylothorax after pulmonary resection and lymph node dissection for primary lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Cardiovasc Surg. 2013 Jun 11. pii: S0022-5223(13)00479-0. doi: 10.1016/j.jtcvs.2013.04.015.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1016/j.jtcvs.2013.04.015](#)

AUTORES / AUTHORS: - Takuwa T; Yoshida J; Ono S; Hishida T; Nishimura M; Aokage K; Nagai K

INSTITUCIÓN / INSTITUTION: - Division of Thoracic Surgery, Department of Thoracic Oncology, National Cancer Center Hospital East, Kashiwa, Chiba, Japan.

RESUMEN / SUMMARY: - **OBJECTIVE:** We reviewed our experience of iatrogenic chylothorax after pulmonary resection for primary lung cancer to evaluate a low-fat diet management strategy. **METHODS:** From October 2003 to March 2010, 1580 patients underwent lobectomy or greater resection and systematic mediastinal lymph node dissection for primary lung cancer at our institution. Chylothorax was diagnosed on the basis of chylous leakage from the chest tube and was confirmed by presence of triglycerides (>110 mg/dL) in the drainage fluid. We initially treated the patients with chylothorax conservatively with a low-fat diet (fat intake <10 g/day). If chest tube drainage produced >500 mL of chylous fluid during the first 24 hours after the initiation of the low-fat diet, surgical intervention was performed. If chest tube drainage produced >300 mL/day of chylous fluid after 3 days of a low-fat diet, we performed pleurodesis by injecting a preparation of OK-432, a penicillin-treated lyophilized preparation of a Streptococcus strain into the thoracic cavity through a chest tube. **RESULTS:** Postoperative chylothorax developed in 37 patients (2.3%), 33 men and 4 women, with a median age of 69 years (range, 44-84). The initial procedures were pneumonectomy in 1 patient and lobectomy in 36 patients. In 23 patients (62%), their condition resolved with the low-fat diet only. A total of 10 patients underwent OK-432 pleurodesis, and 8 of these were cured with continuation of the low-fat diet. These 31 patients who responded to conservative treatment (84%) resumed a normal diet at a median of 10 days (range, 5-27) after the chylothorax diagnosis. The remaining 6 patients (16%) underwent reoperation and were discharged at a median of 18 days (range, 14-33) after the initial surgery. **CONCLUSIONS:** A low-fat diet and OK-432 pleurodesis achieved positive results in >80% of patients with chylothorax after pulmonary resection with systematic mediastinal lymph node dissection within 4 weeks after the initial surgery. More than 500 mL of chylous fluid during the first 24 hours after the initiation of the low-fat diet was valid as an indication of the need for surgical intervention.

TÍTULO / TITLE: - Deoxypodophyllotoxin triggers necroptosis in human non-small cell lung cancer NCI-H460 cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biomed Pharmacother. 2013 Jul 4. pii: S0753-3322(13)00078-4. doi: 10.1016/j.biopha.2013.06.002.

●● Enlace al texto completo (gratis o de pago)

1016/j.biopha.2013.06.002

AUTORES / AUTHORS: - Wu M; Jiang Z; Duan H; Sun L; Zhang S; Chen M; Wang Y; Gao Q; Song Y; Zhu X; Zhang L

INSTITUCIÓN / INSTITUTION: - Jiangsu Center for Drug Screening, China Pharmaceutical University, Nanjing 210009, PR China.

RESUMEN / SUMMARY: - Deoxypodophyllotoxin (DPT), a naturally occurring microtubule destabilizer, inhibits tubulin polymerization and causes cell cycle arrest at G2/M phase in tumor cells. However, the anti-tumor effect and specific mechanism of DPT in non-small cell lung cancer (NSCLC) are still poorly understood. In this study, we determined the anti-tumor effect and potential mechanism of DPT in the NSCLC cell line, NCI-H460 (H460). First, we demonstrated that DPT significantly inhibits the proliferation of H460 cells in vitro and the growth of H460 xenografts in vivo. In further studies, DPT triggered necroptosis in H460 cells with the following characteristics: (I) necrotic cell death morphology; (II) autophagy; (III) loss of plasma membrane integrity; (IV) loss of mitochondria membrane potential; (V) elevation of reactive oxygen species levels; and (VI) specific inhibition of necroptosis via a small molecule, necrostatin-1. This study also revealed that DPT has a similar effect towards the drug-sensitive cancer cell line, H460, and the drug-resistant cell line, H460/Bcl-xL. To our knowledge, this is the first report to document the induction of necroptosis by a microtubule-targeting agent to circumvent cancer drug resistance, thereby providing a new potential choice for clinical cancer therapy, especially drug-resistant cancer therapy.

[320]

TÍTULO / TITLE: - Phosphorylated insulin-like growth factor-1 receptor (pIGF1R) is a poor prognostic factor in brain metastases from lung adenocarcinomas.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Neurooncol. 2013 Jul 2.

●● Enlace al texto completo (gratis o de pago) [1007/s11060-013-1194-](http://1007/s11060-013-1194-3)

[3](#)

AUTORES / AUTHORS: - Wu PF; Huang WC; Yang JC; Lu YS; Shih JY; Wu SG; Lin CH; Cheng AL

INSTITUCIÓN / INSTITUTION: - National Center of Excellence for Clinical Trial and Research, National Taiwan University Hospital, No. 7, Chung-Shan South Rd, Taipei, 100, Taiwan.

RESUMEN / SUMMARY: - A greater understanding of brain metastases is imperative for developing novel therapeutic strategies. Our previous study showed that insulin-like growth factor (IGF) signaling pathway was activated in brain-tropic cancer cells. In this study, we investigated the clinical relevance of activated (phosphorylated) IGF-1 receptor (pIGF1R) expression in brain metastases originating from lung adenocarcinomas. All pathologically confirmed brain metastases from lung adenocarcinomas, with available archived specimens from January 1998 to December 2009 at National Taiwan University Hospital, were assessed immunohistochemically for pIGF1R expression using H-score criteria. A median H-score was used as a cutoff point to define high or low pIGF1R expression. The mutation status in the tyrosine kinase domain of the epidermal growth factor receptor (EGFR) was examined using direct sequencing. The prognostic significance of pIGF1R expression, its correlations with clinicopathological characteristics, and EGFR status were evaluated. In the 86 cases, high membranous/cytoplasmic pIGF1R expression in brain metastases correlated with a shorter median survival (10.8 vs 27.8 mo, $P = 0.003$). This correlation was more significant in patients with EGFR mutations [hazard ratio (HR) 2.38, 95 % confidence interval (CI) 1.19-4.77 for EGFR mutations; HR 1.99, 95 % CI 0.95-4.15 for EGFR wild type] and remained statistically significant in multivariate analysis after adjusting for the effects of other potential prognostic factors, including the graded prognostic assessment score, solitary brain metastasis, extracranial metastatic status, EGFR mutations, and treatment using EGFR tyrosine kinase inhibitors. Although we also identified nuclear pIGF1R expression, this result was prognostically non-significant. Our study results showed that high membranous/cytoplasmic pIGF1R expression in brain metastases was a poor prognostic factor, more significantly in patients with EGFR mutations than in those with wild-type EGFRs.

[321]

TÍTULO / TITLE: - Fibroblast growth factor receptor 1 (FGFR1) copy number is an independent prognostic factor in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jun 24. pii: S0169-5002(13)00247-X. doi: 10.1016/j.lungcan.2013.05.015.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.015](#)

AUTORES / AUTHORS: - Tran TN; Selinger CI; Kohonen-Corish MR; McCaughan BC; Kennedy CW; O'Toole SA; Cooper WA

INSTITUCIÓN / INSTITUTION: - Tissue Pathology and Diagnostic Oncology, Royal Prince Alfred Hospital, Camperdown, New South Wales, Australia.

RESUMEN / SUMMARY: - Fibroblast growth factor receptor 1 (FGFR1) is an oncogene that can potentially be targeted by tyrosine kinase inhibitors. We

aimed to investigate the prevalence and prognostic significance of alterations in FGFR1 copy number in non-small cell lung cancer (NSCLC). FGFR1 status was evaluated by chromogenic silver in situ hybridisation (ISH) in tissue microarray sections from a retrospective cohort of 304 surgically resected NSCLCs and results were correlated with the clinicopathological features and overall survival. High FGFR1 gene copy number (amplification or high-level polysomy) was significantly more frequent in squamous cell carcinomas (SCC) (24.8%) and large cell carcinomas (LCC) (25%) compared to adenocarcinomas (11.3%) (p=0.01 and p=0.03 respectively). Among NSCLC there was no significant correlation between FGFR1-positive status and other clinicopathological features including age, gender, smoking history, tumour size, lymph node status, stage, grade, vascular, lymphatic or perineural invasion. FGFR1-positive patients showed a tendency to longer overall survival in univariate analysis (p=0.14). Multivariate survival analysis using Cox regression model confirmed FGFR1-positive patients had a significant reduction in the risk of death compared to FGFR1-negative patients (HR 0.6; p=0.02). High FGFR1 gene copy number is a common finding in SCC and LCC and is an independent favourable prognostic factor.

[322]

TÍTULO / TITLE: - A novel mechanism for MET and EGFR axis regulation in non-small cell lung cancer involving microRNA-27^a and Sprouty2.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Thorax. 2013 Jul 6. doi: 10.1136/thoraxjnl-2013-204084.

●● Enlace al texto completo (gratis o de pago) [1136/thoraxjnl-2013-204084](#)

AUTORES / AUTHORS: - Shariq O

[323]

TÍTULO / TITLE: - Symptom clusters of pain, depressed mood, and fatigue in lung cancer: assessing the role of cytokine genes.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Support Care Cancer. 2013 Jul 13.

●● Enlace al texto completo (gratis o de pago) [1007/s00520-013-1885-5](#)

AUTORES / AUTHORS: - Reyes-Gibby CC; Swartz MD; Yu X; Wu X; Yennurajalingam S; Anderson KO; Spitz MR; Shete S

INSTITUCIÓN / INSTITUTION: - Department of Emergency Medicine, The University of Texas MD Anderson Cancer Center, Unit 1468, 1155 Pressler Street, Houston, TX, 77030-4009, USA, creyes@mdanderson.org.

RESUMEN / SUMMARY: - PURPOSE: Symptom clusters, the multiple, co-occurring symptoms experienced by cancer patients, are debilitating and affects

quality of life. We assessed if a panel of immune-response genes may underlie the co-occurrence of severe pain, depressed mood, and fatigue and help identify patients with severe versus non-severe symptom clusters. **METHODS:** Symptoms were assessed at presentation, prior to cancer treatment in 599 newly diagnosed lung cancer patients. We applied cluster analyses to determine the patients with severe versus non-severe symptom clusters of pain, depressed mood, and fatigue. **RESULTS:** Two homogenous clusters were identified. One hundred sixteen patients (19 %) comprised the severe symptom cluster, reporting high intensity of pain, depressed mood, and fatigue and 183 (30 %) patients reported low intensity of these symptoms. Using Bayesian model averaging methodology, we found that of the 55 single nucleotide polymorphisms assessed, an additive effect of mutant alleles in endothelial nitric oxide synthase (-1474 T/A) (posterior probability of inclusion (PPI) = 0.78, odds ratio (OR) = 0.54, 95 % credible interval (CI) = (0.31, 0.93)); IL1B T-31C (PPI = 0.72, OR = 0.55, 95 % CI = (0.31, 0.97)); TNFR2 Met196Arg (PPI = 0.70, OR = 1.85, 95 % CI = (1.03, 3.36)); PTGS2 exon 10+837T > C (PPI = 0.69, OR = 0.54, 95 % CI = (0.28, 0.99)); and IL10RB Lys47Glu (PPI = 0.68; OR = 1.74; 95 % CI = (1.04, 2.92)) were predictive for symptom clusters. **CONCLUSIONS:** Genetic polymorphisms may facilitate identification of high-risk patients and development of individualized symptom therapies.

[324]

TÍTULO / TITLE: - Sensitivity to epidermal growth factor receptor tyrosine kinase inhibitor requires E-cadherin in esophageal cancer and malignant pleural mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Jun;33(6):2401-8.

AUTORES / AUTHORS: - Xin HW; Yang JH; Nguyen DM

INSTITUCIÓN / INSTITUTION: - Surgery Branch, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD, USA.

RESUMEN / SUMMARY: - **BACKGROUND/AIM:** Epidermal growth factor receptor tyrosine kinase inhibitor (EGFR-TKI) has limited anticancer efficacy in EGFR-positive esophageal cancer (EsC) and malignant mesothelioma (MPM). The underlying molecular mechanism of resistance to EGFR-TKI in these types of cancer remains unclear. **MATERIALS AND METHODS:** We tested sensitivity to EGFR-TKI, expression/activity of common signal transduction pathways and epithelial to mesenchymal transition (EMT) gene signatures in 14 EsC and MPM cultured cell lines in vitro. **RESULTS:** More than 50% EGFR-positive EsC and MPM cells were resistant to EGFR-TKI, and susceptibility to EGFR-TKI growth-inhibitory effect correlated positively with expression of E-cadherin (epithelial gene marker) and negatively with mesenchymal gene markers. Acquired resistance to EGFR-TKI in intrinsically sensitive cancer cells coincided with spontaneous loss of E-cadherin, while ectopic expression of E-cadherin

sensitized resistant cells to EGFR-TKI. CONCLUSION: E-Cadherin expression appears to be not only a strong biomarker but also a functional requirement and potential therapeutic target for sensitivity to EGFR-TKI.

[325]

TÍTULO / TITLE: - KRAS mutational analysis and immunohistochemical studies can help distinguish pancreatic metastases from primary lung adenocarcinomas.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mod Pathol. 2013 Jul 26. doi: 10.1038/modpathol.2013.146.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1038/modpathol.2013.146](#)

AUTORES / AUTHORS: - Krasinskas AM; Chiosea SI; Pal T; Dacic S

INSTITUCIÓN / INSTITUTION: - Department of Pathology, University of Pittsburgh Medical Center, Pittsburgh, PA, USA.

RESUMEN / SUMMARY: - Lung metastases from primary pancreatic adenocarcinomas often have mucinous features, which makes them difficult to distinguish from the primary lung adenocarcinoma. We explored the potential utility of KRAS mutational status and immunohistochemical studies in the evaluation of adenocarcinomas in the lungs of patients with known pancreatic cancer. Metastatic pancreatic cancer cases had fewer solitary lung lesions (5 (15%) versus 37 (95%) for lung primaries; $P=0.0001$), more tumors with pure (100%) mucinous morphology (16 (50%) versus 9 (23%) for lung primaries; $P=0.0037$), and more frequent KRAS mutations (24 (75%) versus 18 (46%) for lung primaries; $P=0.0093$). Presence of the KRAS G12C mutation had 96% specificity and positive predictive value for lung adenocarcinoma, whereas G12R was 99% specific for pancreatic cancer with a positive predictive value of 86%. Of the 18 KRAS mutated mucinous lung tumors, only 3 (16%) occurred in nonsmokers. Conversely, of the 19 KRAS mutated pancreatic cancer metastases, 11 (58%) occurred in nonsmokers. The median overall survival was significantly shorter for patients with metastatic tumors when compared with patients with primary mucinous tumors (19 months, 95% confidence interval, 10-28 months versus 55 months, 95% confidence interval, 39-70 months, $P=0.005$). CK20 and CDX2 positivity supported metastatic pancreatic cancer, whereas TTF-1 positivity supported primary lung adenocarcinoma. In summary, KRAS G12C mutations, TTF-1, and napsin A were associated with primary lung adenocarcinoma, whereas KRAS G12R mutations, CK20, and CDX2 favored pancreatic adenocarcinoma. We showed survival differences for patients whose pancreatic metastases were synchronous versus metachronous to their primary tumors, and for patients with mucinous pancreatic cancer metastases versus primary mucinous lung adenocarcinomas. Differences in KRAS mutations reflect differences in exposure to tobacco smoking and

highlight biological differences between two KRAS oncogene-driven cancers. *Modern Pathology* advance online publication, 26 July 2013; doi:10.1038/modpathol.2013.146.

[326]

TÍTULO / TITLE: - Superiority and clinical significance of Lunx mRNA in the diagnosis of malignant pleural effusion caused by pulmonary carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - *J Exp Clin Cancer Res.* 2013 Jun 8;32:37. doi: 10.1186/1756-9966-32-37.

●● Enlace al texto completo (gratis o de pago) [1186/1756-9966-32-37](#)

AUTORES / AUTHORS: - Tang Y; Xu L

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, the First Hospital of Jilin University, Changchun; 130021, China.

RESUMEN / SUMMARY: - **BACKGROUND:** Pulmonary carcinoma is the main cause of malignant pleural effusions (MPEs). However, there is no satisfactory marker for diagnosing MPEs caused by pulmonary carcinoma. The purpose of this study is to assess the clinical significance of Lunx mRNA detection in diagnosing MPEs caused by pulmonary carcinoma. **METHODS:** A total of 209 patients with pleural effusions were recruited. The patients were diagnosed by cast-off cells, bronchoscopy, and pleural biopsy. The levels of Lunx mRNA in the pleural effusions were determined by real-time PCR. The levels of PH, LDH, glucose, albumin, and CEA were also determined. Patients who accepted chemotherapy underwent Lunx mRNA detection before and after the first chemotherapy session. The patients were divided into four groups according to the effect of chemotherapy: complete remission (CR), partial remission (PR), no change (NC), and progressive disease (PD). The patients were also divided into two groups according to the change in direction of Lunx mRNA expression after chemotherapy: increased group and decreased group. The patients were followed up to determine survival. **RESULTS:** Lunx mRNA was positive in 89 of 106 patients with pleural effusions caused by pulmonary carcinoma. The specificity and sensitivity were 95.9% and 84.9%. The area under the ROC curve was 0.922. Lunx mRNA detection was better than detection using cast-off cells and CEA. All of the Lunx-positive patients with MPEs were diagnosed with pulmonary carcinoma, and all extrapulmonary carcinoma patients were Lunx-negative. The positive predictive value of Lunx mRNA for the source of tumor cells was 100%. Lunx mRNA expression decreased after the first session of chemotherapy in the CR and PR groups, increased in the PD group, there was no change in the NC group. Further analysis indicated the change in direction of Lunx mRNA expression was associated with the overall survival of patients. The patients in the increased group had longer overall survival times than those in the decreased group. **CONCLUSION:** Lunx mRNA is a specific tumor gene that is highly expressed in MPEs caused by pulmonary carcinoma. The changes in

Lunx mRNA levels after chemotherapy can predict the prognosis of patients with MPEs caused by pulmonary carcinoma.

[327]

TÍTULO / TITLE: - Erlotinib-induced autophagy in epidermal growth factor receptor mutated non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jun 12. pii: S0169-5002(13)00224-9. doi: 10.1016/j.lungcan.2013.05.012.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.012](#)

AUTORES / AUTHORS: - Li YY; Lam SK; Mak JC; Zheng CY; Ho JC

INSTITUCIÓN / INSTITUTION: - Division of Respiratory Medicine, Department of Medicine, The University of Hong Kong, Queen Mary Hospital, Hong Kong Special Administrative Region.

RESUMEN / SUMMARY: - **PURPOSE:** Erlotinib is a commonly used tyrosine kinase inhibitor (TKI) in non-small cell lung cancer (NSCLC). Autophagy is a catabolic process in response to stress and deprivation of nutrients. This study aims to investigate whether autophagy confers acquired resistance to erlotinib treatment in NSCLC. **METHODS:** Four NSCLC cell lines (HCC827, HCC4006, H358 and H1975) with different epidermal growth factor receptor (EGFR) mutation status (exon 19 deletion, exon 19 deletion, wild-type and L858R/T790M respectively) were selected. MTT assay, crystal violet staining and Annexin-V assay were performed to determine cell viability and apoptosis. Autophagic proteins were detected by Western blot. Acidic vesicular organelle (AVO) formation was determined by acridine orange staining. Autophagy inhibitor (chloroquine) and RNA interference were used to demonstrate the biological effect of erlotinib-induced autophagy. **RESULTS:** In line with EGFR mutation status, it was shown that both HCC827 and HCC4006 cells were sensitive to erlotinib, while H358 and H1975 cell lines were resistant. Erlotinib treatment at clinically relevant concentrations induced autophagy (increased LC3II expression, Atg-5/Atg12 conjugation, formation of AVO and p62 degradation) in sensitive NSCLC cell lines, via p53 nuclear translocation, AMPK activation and mTOR suppression. Addition of chloroquine, as an autophagy inhibitor, enhanced erlotinib sensitivity in sensitive cells. Similarly, silencing of Atg5 or Beclin-1 significantly increased sensitivity to erlotinib in both sensitive cell lines. In contrast, there was no induction of autophagy in resistant H358 and H1975 cell lines upon erlotinib exposure. **CONCLUSIONS:** Erlotinib can induce both apoptosis and autophagy in sensitive NSCLC cell lines with activating EGFR mutation (exon 19 del). Inhibition of autophagy can further enhance sensitivity to erlotinib in EGFR-mutated NSCLC, suggesting that autophagy may serve as a protective mechanism.

[328]

- CASTELLANO -

TÍTULO / TITLE: Experiencia y desarrollo de la técnica de lobectomía por cirugía torácica videoasistida: estudio comparativo con cirugía convencional en estadios de cáncer de pulmón no microcítico.

TÍTULO / TITLE: - Experience and Development of the Video-Assisted Thoracic Surgery Lobectomy Technique: Comparative Study With Conventional Surgery in Stage I Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Arch Bronconeumol. 2013 Jul 23. pii: S0300-2896(13)00177-4. doi: 10.1016/j.arbres.2013.05.007.

●● Enlace al texto completo (gratis o de pago)

[1016/j.arbres.2013.05.007](#)

AUTORES / AUTHORS: - Trivino A; Congregado M; Loscertales J; Jimenez-Merchan R; Pinos-Velez N; Cozar F; Carmona-Soto P

INSTITUCIÓN / INSTITUTION: - Servicio de Cirugía Torácica, Hospital 12 de Octubre, Madrid, España. Electronic address: atrivi_17@hotmail.com.

RESUMEN / SUMMARY: - BACKGROUND: Surgical treatment of stage I non-small cell lung cancer (NSCLC) can be performed either by thoracotomy or by employing video-assisted thoracic surgery (VATS). The aim of this study was to compare long and short-term results of conventional surgery (CS) vs. VATS lobectomy in the treatment of stage I NSCLC. MATERIALS AND METHODS: We performed a retrospective, analytical study of patients undergoing surgery for stage I NSCLC during the period January 1993 to December 2005. The variables analyzed were overall survival, recurrence, distant metastasis, morbidity, mortality and hospital stay. During this period, 256 anatomic lung resections were performed: 141 by CS and 115 by VATS. RESULTS: There were statistically significant differences in: (i) mean hospital stay in patients with no complications (VATS group: 4.3 days vs. CS group: 8.7 days, $P=0.0001$); (ii) mean hospital stay in patients with complications (VATS: 7.2 days vs. CS: 13.7 days, $P=0.0001$), and (iii) morbidity (VATS: 15.6% vs. CS: 36.52%, $P=0.0001$). No statistically significant differences were found in: (i) mortality (VATS: 2.17% vs. CS: 1.7%, $P=0.88$); (ii) 5-year overall survival (VATS: 68.1% vs. CS: 63.8%), and (iii) local recurrence and distant metastasis ($P=0.82$). CONCLUSIONS: VATS lobectomy is a safe and effective approach, with a shorter hospital stay and lower morbidity than CS; no statistically significant differences were observed in survival in patients undergoing surgery for stage I NSCLC.

[329]

TÍTULO / TITLE: - A genome-wide association study for malignant mesothelioma risk.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 1. pii: S0169-5002(13)00168-2. doi: 10.1016/j.lungcan.2013.04.018.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.04.018](#)

AUTORES / AUTHORS: - Cadby G; Mukherjee S; Musk AW; Reid A; Garlepp M; Dick I; Robinson C; Hui J; Fiorito G; Guarrera S; Beilby J; Melton PE; Moses EK; Ugolini D; Mirabelli D; Bonassi S; Magnani C; Dianzani I; Matullo G; Robinson B; Creaney J; Palmer LJ

INSTITUCIÓN / INSTITUTION: - Centre for Genetic Origins of Health and Disease, University of Western Australia, 35 Stirling Hwy, Crawley, Western Australia 6009, Australia. Electronic address: gemma.cadby@uwa.edu.au.

RESUMEN / SUMMARY: - Malignant mesothelioma (MM) is a uniformly fatal tumour of mesothelial cells. MM is caused by exposure to asbestos however most individuals with documented asbestos exposure do not develop MM. Although MM appears to aggregate within families, the genetics of MM susceptibility is a relatively unexplored area. The aim of the current study was to identify genetic factors that contribute to MM risk. A genome-wide association analysis of 2,508,203 single nucleotide polymorphisms (SNPs) from 428 MM cases and 1269 controls from Western Australia was performed. Additional genotyping was performed on a sample of 778 asbestos-exposed Western Australian controls. Replication of the most strongly associated SNPs was undertaken in an independent case-control study of 392 asbestos-exposed cases and 367 asbestos-exposed controls from Italy. No SNPs achieved formal genome-wide statistical significance in the Western Australian study. However, suggestive results for MM risk were identified in the SDK1, CRTAM and RASGRF2 genes, and in the 2p12 chromosomal region. These findings were not replicated in the Italian study, although there was some evidence of replication in the region of SDK1. These suggestive associations will be further investigated in sequencing and functional studies.

[330]

TÍTULO / TITLE: - Altered miRNA Expression Profiles and miR-1^a Associated With Urethane-Induced Pulmonary Carcinogenesis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Toxicol Sci. 2013 Jul 28.

●● Enlace al texto completo (gratis o de pago) [1093/toxsci/kft131](#)

AUTORES / AUTHORS: - Li X; Wu J; Zheng J; Li Y; Yang T; Hu G; Dai J; Yang Q; Dai L; Jiang Y

INSTITUCIÓN / INSTITUTION: - * Institute for Chemical Carcinogenesis, State Key Laboratory of Respiratory Disease and.

RESUMEN / SUMMARY: - MicroRNAs (miRNAs) are small RNA molecules that regulate posttranscriptional gene expression. Previous research has suggested that aberrant miRNA expression often plays a critical role in many types of cancer, including lung cancer. However, the exact miRNAs that are involved in pulmonary carcinogenesis remain unclear. We investigated the miRNA-based molecular changes that occur in urethane-induced carcinogenicity and identified specific miRNA deregulation in pulmonary carcinogenesis induced by urethane. In this study, we used a lung cancer model in which Balb/c mice were exposed to urethane via ip injection once a week for four consecutive weeks. The mice were then killed in weeks 6, 12, or 24. Two small RNA libraries were constructed with the total RNA from the lung tumor and normal adjacent lung tissues of the urethane-injected mice collected in week 24. Using Solexa sequencing, we identified a plethora of differentially expressed miRNAs and predicted nine novel miRNAs. Further analysis demonstrated the sustainable downregulation of miR-1^a in the lung tissues in lung carcinogenesis induced by urethane. The levels of miR-1^a were also reduced in the serum. Our findings indicate that urethane exposure alters the expression of a cluster of miRNAs. The simultaneous downregulation of miR-1^a in lung tissues and serum in urethane-induced pulmonary carcinogenesis suggests that miR-1^a is associated with tumorigenesis.

[331]

TÍTULO / TITLE: - Local recurrence after surgery for non-small cell lung cancer: A recursive partitioning analysis of multi-institutional data.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Cardiovasc Surg. 2013 Jul 13. pii: S0022-5223(13)00606-5. doi: 10.1016/j.jtcvs.2013.05.041.

●● Enlace al texto completo (gratis o de pago)

[1016/j.jtcvs.2013.05.041](#)

AUTORES / AUTHORS: - Kelsey CR; Higgins KA; Peterson BL; Chino JP; Marks LB; D'Amico TA; Varlotto JM

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Duke Cancer Institute, Durham, NC. Electronic address: kelse003@mc.duke.edu.

RESUMEN / SUMMARY: - **OBJECTIVE:** To define subgroups at high risk of local recurrence (LR) after surgery for non-small cell lung cancer using a recursive partitioning analysis (RPA). **METHODS:** This Institutional Review Board-approved study included patients who underwent upfront surgery for I-IIIa non-small cell lung cancer at Duke Cancer Institute (primary set) or at other participating institutions (validation set). The 2 data sets were analyzed separately and identically. Disease recurrence at the surgical margin, ipsilateral hilum, and/or mediastinum was considered an LR. Recursive partitioning was used to build regression trees for the prediction of local recurrence-free survival (LRFS) from standard clinical and pathological factors. LRFS distributions were

estimated with the Kaplan-Meier method. RESULTS: The 1411 patients in the primary set had a 5-year LRFS rate of 77% (95% confidence interval [CI], 0.74-0.81), and the 889 patients in the validation set had a 5-year LRFS rate of 76% (95% CI, 0.72-0.80). The RPA of the primary data set identified 3 terminal nodes based on stage and histology. These nodes and their 5-year LRFS rates were as follows: (1) stage I/adenocarcinoma, 87% (95% CI, 0.83-0.90); (2) stage I/squamous or large cell, 72% (95% CI, 0.65-0.79); and (3) stage II-IIIa, 62% (95% CI, 0.55-0.69). The validation RPA identified 3 terminal nodes based on lymphovascular invasion (LVI) and stage: (1) no LVI/stage IA, 82% (95% CI, 0.76-0.88); (2) no LVI/stage IB-IIIa, 73% (95% CI, 0.69-0.80); and (3) LVI, 58% (95% CI, 0.47-0.69). CONCLUSIONS: The risk of LR was similar in the primary and validation patient data sets. There was discordance between the 2 data sets regarding the clinical factors that best segregate patients into risk groups.

[332]

TÍTULO / TITLE: - Use of a new generation of capillary electrophoresis to quantify circulating free DNA in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Chim Acta. 2013 Jul 26. pii: S0009-8981(13)00282-9. doi: 10.1016/j.cca.2013.07.014.

●● Enlace al texto completo (gratis o de pago) 1016/j.cca.2013.07.014

AUTORES / AUTHORS: - Chiappetta C; Anile M; Leopizzi M; Venuta F; Rocca CD

INSTITUCIÓN / INSTITUTION: - Department of Medico-Surgical Sciences and Biotechnologies, Faculty of Medicine and Pharmacy, Sapienza University, Polo Pontino, Corso Della Repubblica 79, Latina, Italy.

RESUMEN / SUMMARY: - Circulating free DNA (cfDNA) is present in higher concentration in non-small-cell lung cancer (NSCLC) patients than in controls. This study was designed to assess the sensitivity and specificity of Agilent 2100 Bioanalyzer to identify patients with NSCLC and to compare it with quantitative RealTime-PCR (RT-qPCR) assay. 30 NSCLC patients and 26 controls were analyzed. The amount of cfDNA was determined both through quantitative RT-PCR targeting the human beta-actin gene and by Agilent 2100 Bioanalyzer. Performances of the assays were calculated by the receiver operating characteristic (ROC) curves. The mean cfDNA concentration, obtained through the use of Agilent 2100 Bioanalyzer, in NSCLC patients (94.5ng/mL) was almost twice the concentration detected in controls (42.8ng/mL) as well as found by RT-qPCR (22.5ng/mL vs 7.1ng/mL, $p < 0.001$). The area under curve of Agilent 2100 Bioanalyzer and RT-PCR showed that there are no statistically significant differences between these tests ($p < 0.92$). This study shows that Agilent 2100 Bioanalyzer is an effective diagnostic tool to discriminate NSCLC patients from healthy individuals and suggests a new approach for early detection of NSCLC.

[333]

TÍTULO / TITLE: - Immunohistochemistry in the differential diagnostics of primary lung cancer: an investigation within the Southern Swedish Lung Cancer Study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Clin Pathol. 2013 Jul;140(1):37-46. doi: 10.1309/AJCP50RDXSCSBTBO.

●● Enlace al texto completo (gratis o de pago)

[1309/AJCP50RDXSCSBTBO](#)

AUTORES / AUTHORS: - Brunnstrom H; Johansson L; Jirstrom K; Jonsson M; Jonsson P; Planck M

INSTITUCIÓN / INSTITUTION: - Dept of Pathology, Regional Laboratories Region Skane, SE-22185 Lund, Sweden. hans.brunnstrom@med.lu.se

RESUMEN / SUMMARY: - OBJECTIVES: To assess immunohistochemical (IHC) stains differentially expressed between different types of lung cancer. METHODS: We evaluated 16 different IHC stains in 209 prospectively included, surgically treated primary lung cancers, including 121 adenocarcinomas, 65 squamous cell carcinomas, 15 large-cell carcinomas, 5 adenosquamous carcinomas, 2 sarcomatoid carcinomas, and 1 small-cell carcinoma, using the tissue microarray technique. RESULTS: Cytokeratin 5 (CK5) and P63 were both positive in 10% or more of the cells in 97% of the squamous cell carcinomas, with the former being positive (<10% of the cells) in only 2 non-squamous cell carcinomas. Thyroid transcription factor 1 (TTF1) and napsin A were positive in 10% or more of the cells in 88% and 87% of the adenocarcinomas, respectively, with 94% of the adenocarcinomas being positive in at least 1 marker. Fifteen percent of the adenocarcinomas were positive for estrogen receptor. CONCLUSIONS: CK5, TTF1, and napsin A are sensitive markers for squamous cell carcinoma and adenocarcinoma of the lung.

[334]

TÍTULO / TITLE: - Obesity in relation to lung cancer incidence in African American women.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Causes Control. 2013 Sep;24(9):1695-703. doi: 10.1007/s10552-013-0245-6. Epub 2013 Jun 7.

●● Enlace al texto completo (gratis o de pago) [1007/s10552-013-0245-](#)

[6](#)

AUTORES / AUTHORS: - Bethea TN; Rosenberg L; Charlot M; O'Connor GT; Adams-Campbell LL; Palmer JR

INSTITUCIÓN / INSTITUTION: - Slone Epidemiology Center, Boston University, 1010 Commonwealth Avenue, Boston, MA, 02215, USA, tnb@bu.edu.

RESUMEN / SUMMARY: - PURPOSE: Although a number of studies have found an inverse association between body mass index (BMI) and risk of lung cancer,

there is little information on this relation in African Americans, who experience a higher incidence of lung cancer. METHODS: We assessed the relation of BMI to incidence of lung cancer in the Black Women's Health Study, an ongoing prospective follow-up of 59,000 women in the USA. Cox proportional hazard models were used to estimate hazard ratios for various levels of BMI relative to BMI 18.5-24.9 kg/m² ("normal weight") with adjustment for age, education, pack-years of smoking, and other covariates. Two other anthropometric measures, waist circumference (WC) and waist/hip ratio (WHR), were also assessed. A total of 323 primary lung cancer cases were identified from 1995 to 2011. RESULTS: The hazard ratio (HR) for BMI \geq 30 relative to BMI 18.5-24.9 was 0.69 (95 % CI 0.51-0.92). As expected, cigarette smoking was strongly associated with increased risk of lung cancer. In analyses stratified by smoking status, the HR for BMI \geq 30 relative to BMI 18.5-24.9 was 0.62 (0.38-1.00) among current smokers, 0.90 (0.56-1.42) among former smokers, and 0.83 (0.41-1.70) among never smokers (p for interaction = 0.28). Control for pack-years of smoking or age started smoking had little effect on the hazard ratios. WC and WHR were not materially associated with lung cancer risk. CONCLUSION: Our results indicate that high BMI is associated with a lower risk of lung cancer in African American women, particularly among current smokers.

[335]

TÍTULO / TITLE: - Prognostic significance of the extent of lymph node involvement in stage II-N1 non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chest. 2013 Jun 6. doi: 10.1378/chest.13-0073.

●● [Enlace al texto completo \(gratis o de pago\) 1378/chest.13-0073](#)

AUTORES / AUTHORS: - Li ZM; Ding ZP; Luo QQ; Wu CX; Liao ML; Zhen Y; Chen ZW; Lu S

RESUMEN / SUMMARY: - BACKGROUND: The non-small-cell lung cancer (NSCLC) staging system published in the 7th edition of the Union for International Cancer Control (UICC) and American Joint Commission on Cancer (AJCC) cancer staging manuals in 2009 did not include any changes to current N descriptors for NSCLC. However the prognostic significance of the extent of lymph node (LN) involvement, including the lymph node zones involved (hilar/interlobar or peripheral), cancer-involved lymph node ratios (LNR), and the number of involved lymph nodes remain unknown. The aim of this report is to evaluate the extent of lymph node involvement and other prognostic factors in predicting outcome after definitive surgery among Chinese stage II-N1 NSCLC patients. METHODS: We retrospectively reviewed the clinicopathological characteristics of 206 stage II (T1a-T2bN1M0) NSCLC patients who had undergone complete surgical resection at Shanghai Chest Hospital from June 1999 to June 2009. Overall survival (OS) and disease-free

survival (DFS) were compared using Kaplan-Meier statistical analysis. Stratified and Cox regression analyses were used to evaluate the relationship between the lymph node involvement and survival. RESULTS: Peripheral zone lymph node involvement, cancer-involved lymph node ratio, smaller tumor size, and squamous cell carcinoma were shown to be statistically significant indicators of higher OS and DFS by univariate analyses. Visceral pleural involvement was also shown to share a statistically significant relationship with DFS by univariate analyses. Multivariate analyses showed tumor size and zone of lymph node involvement were to be significant predictors of OS. CONCLUSION: Zone of N1 lymph node, LNR and tumor size were both found to provide independent prognostic information in patients with stage II NSCLC. This information may be used to stratify patients into groups by risk for recurrence.

[336]

TÍTULO / TITLE: - Comparison Study of the Performance of the QIAGEN EGFR RGQ and EGFR pyro assays for mutation analysis in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Clin Pathol. 2013 Jul;140(1):7-19. doi: 10.1309/AJCPMF26ABEOYCHZ.

●● Enlace al texto completo (gratis o de pago)

[1309/AJCPMF26ABEOYCHZ](#)

AUTORES / AUTHORS: - Cushman-Vokoun AM; Crowley AM; Rapp SA; Greiner TC

INSTITUCIÓN / INSTITUTION: - Dept of Pathology and Microbiology, University of Nebraska Medical Center, 985454 Nebraska Medical Center, Omaha, NE 68105-5454, USA. acushman@unmc.edu

RESUMEN / SUMMARY: - OBJECTIVES: To compare 2 laboratory assays commonly used in the evaluation of epidermal growth factor receptor (EGFR) mutations in non-small cell lung cancer (NSCLC). METHODS: Fifty-three formalin-fixed, paraffin-embedded NSCLC specimens were selected. Extracted DNA was analyzed using the EGFR RGQ Amplification Refractory Mutation System Scorpions probe-based real-time polymerase chain reaction (PCR) assay and the EGFR Pyro pyrosequencing assay. RESULTS: Fourteen EGFR mutations were identified in 13 specimens using at least 1 of the assays, with a mutation concordance rate of 92.9%. Using dideoxy sequencing as the gold standard, clinical sensitivity was 73.7% and 68.4% by the RGQ and Pyro assays, respectively, but 100% by both for common drug sensitivity mutations. Performance observations included the following: the RGQ system requires higher DNA input, the RGQ system is a single-step procedure, the EGFR Pyro assay is a 2-step procedure, only the RGQ system can identify exon 20 insertions, the RGQ system is more sensitive, and the Pyro system can specify exact mutations for all interrogated sites. CONCLUSIONS: Both the RGQ real-

time PCR and Pyro assays adequately detect common EGFR mutations; however, the RGQ system is more clinically and analytically sensitive. Performance characteristics should be considered when evaluating these EGFR mutation assays for clinical adoption.

[337]

TÍTULO / TITLE: - Leucine Zipper Tumor Suppressor 2 Inhibits Cell Proliferation and Regulates Lef/Tcf-dependent Transcription through Akt/GSK3beta Signaling Pathway in Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Histochem Cytochem. 2013 Jul 21.

●● Enlace al texto completo (gratis o de pago)

[1369/0022155413495875](#)

AUTORES / AUTHORS: - Cui QZ; Tang ZP; Zhang XP; Zhao HY; Dong QZ; Xu K; Wang EH

INSTITUCIÓN / INSTITUTION: - Department of Pathology, The First Affiliated Hospital and College of Basic Medical Sciences of China Medical University, Shenyang, China (Q-ZC,Z-PT,X-PZ,H-YZ,Q-ZD,E-HW).

RESUMEN / SUMMARY: - Leucine zipper tumor suppressor 2 (LZTS2) is implicated in several cancers; however, its biological mechanisms in non-small cell lung cancer (NSCLC) are not yet understood. We found that low levels of LZTS2 in NSCLC were correlated with tumor and nodal status. LZTS2 could inhibit cell proliferation and cell cycle transition at the G1/S phase and was implicated in the regulation of proteins associated with the canonical Wnt pathway, including GSK3beta and beta-catenin through inactivating the Akt pathway. These results provide novel mechanistic insight into the biological roles of LZTS2 in lung cancer cells.

[338]

TÍTULO / TITLE: - The Radiosensitizing Effect of Paeonol on Lung Adenocarcinoma by Augmentation of Radiation-induced Apoptosis and Inhibition of the PI3K/Akt Pathway.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Radiat Biol. 2013 Jul 23.

●● Enlace al texto completo (gratis o de pago)

[3109/09553002.2013.825058](#)

AUTORES / AUTHORS: - Lei Y; Li HX; Jin WS; Peng WR; Zhang CJ; Bu LJ; Du YY; Ma T; Sun GP

RESUMEN / SUMMARY: - Abstract Purpose: To investigate the radiosensitizing effect and mechanism of action by the natural product-Paeonol on lung adenocarcinoma both in vitro and in vivo. Materials and methods: Two lung adenocarcinoma cell lines (human lung adenocarcinoma cell line A549 and

mouse Lewis lung carcinoma (LLC) cell line) were chosen for this research. In order to select the experimental concentrations of Paeonol, cytotoxicity was determined using a MTT (3-[4,5-dimethylthiazol-2-yl]-2,5-diphenyltetrazolium bromide) assay. A clonogenic assay was performed to measure the radiosensitizing effects. Apoptosis was determined by the TUNEL (terminal deoxynucleotidyl transferase-mediated dUTP nick and labeling) assay and flow cytometry. Protein expression was analyzed by Western blotting. To test the radiosensitizing effect in vivo, a transplanted tumor model was established. Results: The MTT assay showed that Paeonol inhibited proliferation of cells. Paeonol concentration ranged from an IC₅₀ (5% inhibiting concentration) to an IC₂₀ and was used at nontoxic concentrations for subsequent experiments. The clonogenic assay showed that Paeonol enhanced the radiosensitivity of cells. Data from the TUNEL assay and flow cytometry verified that Paeonol enhanced radiation-induced apoptosis. Paeonol inhibited the activation of the PI3K/AKT (Phosphatidylinositol 3-kinase/ Protein Kinase B) pathway and down-regulated the expression of COX-2 (Cyclooxygenase-2) and Survivin. Paeonol (1718mg/kg) combined with 10Gy irradiation inhibited the growth of a transplanted tumor model in vivo, resulting in the longest tumor growth time, tumor growth delay and the highest inhibition ratio when compared with the radiotherapy alone group. Conclusions: It is reported for the first time that Paeonol has a radiosensitizing effect on lung adenocarcinoma both in vitro and in vivo. This effect could be related to the augmentation of radiation-induced apoptosis and the inhibition of the PI3K/Akt signalling pathway and its downstream proteins: COX-2 and Survivin.

[339]

TÍTULO / TITLE: - High Throughput Liquid and Gas Chromatography-Tandem Mass Spectrometry Assays for Tobacco-Specific Nitrosamine and Polycyclic Aromatic Hydrocarbon Metabolites Associated with Lung Cancer in Smokers.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chem Res Toxicol. 2013 Jul 24.

●● Enlace al texto completo (gratis o de pago) [1021/tx400121n](#)

AUTORES / AUTHORS: - Carmella SG; Ming X; Olvera N; Brookmeyer C; Yoder A; Hecht SS

INSTITUCIÓN / INSTITUTION: - Masonic Cancer Center, University of Minnesota, Minneapolis, Minnesota 55455, United States.

RESUMEN / SUMMARY: - We developed and applied high throughput liquid and gas chromatography-tandem mass spectrometry (LC-MS/MS and GC-MS/MS) methods for the cigarette smoking-associated biomarkers 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanol (NNAL) and r-1,t-2,3,c-4-tetrahydroxy-1,2,3,4-tetrahydrophenanthrene (PheT), which are urinary metabolites of the carcinogenic tobacco-specific nitrosamine 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK) and the polycyclic aromatic

hydrocarbon phenanthrene. NNAL and PheT levels have been linked to lung cancer in previous studies of smokers. Confirmation of these relationships will require further molecular epidemiology studies, necessitating improved methodology applicable to large numbers of small urine samples. Furthermore, NNAL is excreted in urine either unconjugated or as an N- or O-glucuronide, but little data are available on the amounts of each in urine. For the high throughput analysis of NNAL, 3 aliquots were processed from each urine sample, one for the analysis of free NNAL, one for free NNAL plus NNAL-N-Gluc, and one for total NNAL (the sum of free NNAL, NNAL-N-Gluc, and NNAL-O-Gluc). Ninety-six well plate technology was used for sample enrichment by supported liquid extraction plates, mixed mode reverse-phase/cation exchange solid-phase extraction, and LC-MS/MS analysis. For the analysis of PheT, the urine samples were cleaned up by solid-phase extraction on styrene-divinylbenzene sorbent, silylated, and analyzed by GC-MS/MS, both in 96-well format. The methods were validated analytically with respect to accuracy and precision, and applied in an ongoing molecular epidemiology study of smokers. The amount of total NNAL in smokers' urine was (mean +/- SD) 1.65 +/- 2.13 pmol/mL (N = 2641). Free NNAL, NNAL-N-Gluc, and NNAL-O-Gluc represented (mean +/- SD) 31 +/- 11%, 22 +/- 14%, and 48 +/- 15% of total NNAL, respectively. The amount of PheT in smokers' urine was (mean +/- SD) 1.43 +/- 2.16 pmol/mL (N = 2613). The methodology described here should be widely applicable in future studies of tobacco use and cancer.

[340]

TÍTULO / TITLE: - Circulating miR-22, miR-24 and miR-34^a as novel predictive biomarkers to pemetrexed-based chemotherapy in advanced non small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cell Physiol. 2013 Jun 24. doi: 10.1002/jcp.24422.

●● Enlace al texto completo (gratis o de pago) [1002/jcp.24422](#)

AUTORES / AUTHORS: - Franchina T; Amodeo V; Bronte G; Savio G; Ricciardi GR; Picciotto M; Russo A; Giordano A; Adamo V

INSTITUCIÓN / INSTITUTION: - Unit of Medical Oncology, A.O.O.R. Papardo-Piemonte & Department of Human Pathology, University of Messina, Italy.

RESUMEN / SUMMARY: - BACKGROUND: Pemetrexed has been widely used in patients with advanced non small cell lung cancer (NSCLC). The clinical relevance of polymorphisms of folate pathway genes for pemetrexed metabolism have not been fully elucidated yet. The aim of this study was to evaluate the expression levels of circulating miR-22, miR-24 and miR-34^a, possibly involved in folate pathway, in NSCLC patients treated with pemetrexed compared with healthy controls and to investigate their impact on patient clinical outcomes. METHODS: A total of 22 consecutive patients with advanced NSCLC, treated with pemetrexed-based chemotherapy and 27 age and sex

matched healthy controls were included in this preliminary analysis. miR-22, miR-24 and miR-34^a targets were identified by TargetScan 6.2 algorithm, validating the involvement of these microRNAs in folate pathway. MicroRNAs were isolated from whole blood and extracted with miRNAeasy Mini Kit (Qiagen). miRNA profiling was performed using Real-Time PCR. SPSS 17 was used to data analysis. RESULTS: miR-22, miR-24 and miR-34^a were found upregulated ($p < 0.05$) in NSCLC patients versus healthy controls. Higher expression levels were recorded for miR-34^a. Nevertheless, significantly higher miR-22 expression was observed in patients developing progressive disease ($p = 0.03$). No significant associations with clinical outcome were recorded for miR-24 and miR-34^a. CONCLUSIONS: Albeit preliminary, these data support the involvement of miR-22, miR-24 and miR-34^a in advanced NSCLC. The correlation between high expression of miR-22 in whole blood and the lack of response in pemetrexed treated NSCLC patients indicates that miR-22 could represent a novel predictive biomarker for pemetrexed-based treatment. J. Cell. Physiol. © 2013 Wiley Periodicals, Inc.

[341]

TÍTULO / TITLE: - Primary pulmonary botryomycosis: a bacterial lung infection mimicking lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Tuberc Lung Dis. 2013 Jul;17(7):992-4. doi: 10.5588/ijtld.12.0054.

●● Enlace al texto completo (gratis o de pago) [5588/ijtld.12.0054](#)

AUTORES / AUTHORS: - Ariza-Prota MA; Pando-Sandoval A; Garcia-Clemente M; Jimenez H; Alvarez-Alvarez C; Casan-Clara P

INSTITUCIÓN / INSTITUTION: - Area de Gestion Clinica de Pulmon, Hospital Universitario Central de Asturias, Oviedo, Asturias, España.

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RESUMEN / SUMMARY: - Primary pulmonary botryomycosis, or bacterial pseudomycosis, is an unusual bacterial infection characterised by the formation of eosinophilic granules that resemble those of Actinomyces species infection. The diagnosis of botryomycosis is based on culture of the granules revealing gram-positive cocci or gram-negative bacilli. The bacterial pathogen most frequently found is Staphylococcus aureus. The pathobiology remains unknown. Pulmonary botryomycosis can resemble actinomycosis, tuberculosis or invasive carcinoma. Definitive treatment requires a combination of both surgical debridement and long-term antimicrobial therapy. We present a case of primary pulmonary botryomycosis in an immunocompetent patient.

[342]

TÍTULO / TITLE: - Challenges and controversies in the diagnosis of malignant mesothelioma: Part 2. Malignant mesothelioma subtypes, pleural synovial sarcoma, molecular and prognostic aspects of mesothelioma, BAP1, aquaporin-1 and microRNA.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Pathol. 2013 Jul 6.

●● Enlace al texto completo (gratis o de pago) [1136/jclinpath-2013-201609](#)

AUTORES / AUTHORS: - Henderson DW; Reid G; Kao SC; van Zandwijk N; Klebe S

INSTITUCIÓN / INSTITUTION: - Department of Surgical Pathology, SA Pathology, Flinders Medical Centre, Adelaide, South Australia.

RESUMEN / SUMMARY: - Pleural malignant mesothelioma (MM) includes several unusual and even rare but distinctive histological subtypes, in addition to the usual subdivision into epithelioid, biphasic and sarcomatoid MM. Criteria for discrimination between fibrous pleuritis versus desmoplastic mesothelioma include evidence of neoplastic invasion for diagnosis of desmoplastic MM, but this histological assessment is complicated by the recently-described 'fake fat phenomenon' in cases of fibrous pleuritis. The distinction between biphasic and monophasic synovial sarcoma of the pleura versus biphasic and sarcomatoid MM can be problematical and is most cogently based upon molecular detection of the t(X;18) translocation, whereas a clear diagnosis of MM for a pleural tumour histologically resembling synovial sarcoma is favoured by a negative result for this translocation and, probably, microRNA evidence supportive of a diagnosis of MM. Aquaporin-1 (AQP1) is a molecule involved in the growth of MM cells, and yet is a factor reported to correlate with improved survival rates for MM with an epithelioid component, in comparison to AQP1-poor MM, as assessed from AQP1 expression by epithelioid MM cells only (apart from co-expression by stromal endothelial cells in addition to the tumour cells). Recent reports have also focused upon germline mutations in the BRCA1-associated protein 1 (BAP1), not only in cases of familial mesothelioma, but also BAP1 deletion in sporadic MM. Prognostic factors for MM include not only the histological subtypes, but other independent variables that include (among others), AQP1 expression by mesothelioma cells, the clinical status of the patient, the serum neutrophil:lymphocyte ratio and blood thrombocytosis.

[343]

TÍTULO / TITLE: - Empirical Hierarchical Bayes Approach to Gene-Environment Interactions: Development and Application to Genome-Wide Association Studies of Lung Cancer in TRICL.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Genet Epidemiol. 2013 Jul 26. doi: 10.1002/gepi.21741.

●● Enlace al texto completo (gratis o de pago) [1002/gepi.21741](#)

AUTORES / AUTHORS: - Sohns M; Viktorova E; Amos CI; Brennan P; Fehringer G; Gaborieau V; Han Y; Heinrich J; Chang-Claude J; Hung RJ; Muller-Nurasyid M; Risch A; Lewinger JP; Thomas DC; Bickeboller H

INSTITUCIÓN / INSTITUTION: - Department of Genetic Epidemiology, University Medical Center, Georg-August University of Goettingen, Goettingen, Germany.

RESUMEN / SUMMARY: - The analysis of gene-environment (G x E) interactions remains one of the greatest challenges in the postgenome-wide association studies (GWASs) era. Recent methods constitute a compromise between the robust but underpowered case-control and powerful case-only methods. Inferences of the latter are biased when the assumption of gene-environment (G-E) independence in controls fails. We propose a novel empirical hierarchical Bayes approach to G x E interaction (EHB-GE), which benefits from greater rank power while accounting for population-based G-E correlation. Building on Lewinger et al.'s ([2007] Genet Epidemiol 31:871-882) hierarchical Bayes prioritization approach, the method first obtains posterior G-E correlation estimates in controls for each marker, borrowing strength from G-E information across the genome. These posterior estimates are then subtracted from the corresponding case-only G x E estimates. We compared EHB-GE with rival methods using simulation. EHB-GE has similar or greater rank power to detect G x E interactions in the presence of large numbers of G-E correlations with weak to strong effects or only a low number of such correlations with large effect. When there are no or only a few weak G-E correlations, Murcray et al.'s method ([2009] Am J Epidemiol 169:219-226) identifies markers with low G x E interaction effects better. We applied EHB-GE and competing methods to four lung cancer case-control GWAS from the Interdisciplinary Research in Cancer of the Lung/International Lung Cancer Consortium with smoking as environmental factor. A number of genes worth investigating were identified by the EHB-GE approach.

[344]

TÍTULO / TITLE: - Fungal infection mimicking lung cancer: a potential cause of misdiagnosis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - AJR Am J Roentgenol. 2013 Aug;201(2):W364. doi: 10.2214/AJR.13.10568.

●● Enlace al texto completo (gratis o de pago) [2214/AJR.13.10568](#)

AUTORES / AUTHORS: - Guimaraes MD; Marchiori E; Barco Godoy MC

INSTITUCIÓN / INSTITUTION: - 1 Hospital AC Camargo, Sao Paulo, Brazil.

[345]

TÍTULO / TITLE: - Inhaled corticosteroid use and risks of lung cancer and laryngeal cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Respir Med. 2013 Aug;107(8):1222-33. doi: 10.1016/j.rmed.2012.12.002. Epub 2013 Jun 12.

●● Enlace al texto completo (gratis o de pago)

[1016/j.rmed.2012.12.002](#)

AUTORES / AUTHORS: - Lee CH; Hyun MK; Jang EJ; Lee NR; Kim K; Yim JJ

INSTITUCIÓN / INSTITUTION: - Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine and Lung Institute, Seoul National University, College of Medicine, Seoul, Republic of Korea; National Evidence-based Healthcare Collaborating Agency, Seoul, Republic of Korea.

RESUMEN / SUMMARY: - BACKGROUND: Chronic inflammation has been implicated in the pathogenesis of several cancers, including lung and laryngeal cancer. The objective of the study is to elucidate the association between ICS use and diagnosis of lung and laryngeal cancer. METHODS: A nested case-control study based on the Korean national claims database included new adult users of inhaled medications between January 1, 2007, and December 31, 2010. Patients diagnosed with lung cancer or laryngeal cancer after enrollment were identified as cases and up to five control individuals matched for age, sex, diagnosis of asthma or COPD, Charlson Comorbidity Index scores, number of health care visits, and initiation date were selected. RESULTS: From the 792,687 eligible cohort, 9177 individuals diagnosed with lung cancer were matched with 37,048 controls. Additionally, 408 laryngeal cancer patients and 1651 controls were matched. ICS use was associated with a decreased rate of lung cancer diagnosis [adjusted odds ratio (aOR), 0.79; 95% confidence interval (CI), 0.69-0.90]. The inverse association between ICS use and lung cancer risk was dose dependent ($P < 0.0001$ for the trend). However, no reduction in the risk of laryngeal cancer among ICS users was identified (aOR, 1.06; 95% CI, 0.62-1.18). CONCLUSION: The use of ICS is associated with a reduced risk of lung cancer but not of laryngeal cancer.

[346]

TÍTULO / TITLE: - Merkel cell polyomavirus and non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Br J Cancer. 2013 Jun 25;108(12):2623. doi: 10.1038/bjc.2013.195. Epub 2013 Jun 4.

●● Enlace al texto completo (gratis o de pago) [1038/bjc.2013.195](#)

AUTORES / AUTHORS: - Shuda M; Feng H; Moore PS; Chang Y

INSTITUCIÓN / INSTITUTION: - Cancer Virology Program, University of Pittsburgh, Pittsburgh, PA, USA.

[347]

TÍTULO / TITLE: - Are discordant PET and pathological assessments of the mediastinum in non-small cell lung cancer significant?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Cardiovasc Surg. 2013 Jul 16. pii: S0022-5223(13)00592-8. doi: 10.1016/j.jtcvs.2013.05.027.

●● Enlace al texto completo (gratis o de pago)

1016/j.jtcvs.2013.05.027

AUTORES / AUTHORS: - Tandberg DJ; Gee NG; Chino JP; D'Amico TA; Ready NE; Coleman RE; Kelsey CR

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Duke University School of Medicine, Durham, NC. Electronic address:

d.tandberg@gmail.com.

RESUMEN / SUMMARY: - **OBJECTIVE:** Many patients with non-small cell lung cancer have positive mediastinal lymph nodes on preoperative positron emission tomography (PET) but do not have mediastinal involvement after surgery. The prognostic significance of this discordance was assessed. **METHODS:** This Institutional Review Board-approved study evaluated patients treated with upfront surgery at Duke Cancer Institute (Durham, NC) for non-small cell lung cancer from 1995 to 2008. Those staged with PET with pN0-1 disease after negative invasive mediastinal assessment were included. Mediastinal lymph nodes were scored as positive or negative based on visual analysis of the preoperative PET. Clinical outcomes of the PET-positive and PET-negative cohorts were estimated using the Kaplan-Meier method and compared using a log-rank test. Prognostic factors were assessed using a multivariate analysis. **RESULTS:** A total of 547 patients were assessed, of whom 105 (19%) were PET positive in the mediastinum. The median number of mediastinal lymph node stations sampled was 4 (range, 1-9). The 5-year risk of local recurrence was 26% in PET-positive versus 21% in PET-negative patients ($P = .50$). Patterns of local failure were similar between the 2 groups. Distant recurrence (35% vs 29%; $P = .63$) and overall survival (44% vs 54%; $P = .52$) were comparable for PET-positive and PET-negative patients. On multivariate analysis, a positive PET was not significant for local recurrence (hazard ratio [HR], 1; $P = 1$), distant recurrence (HR, 0.82; $P = .42$), or overall survival (HR, 1.08; $P = .62$). **CONCLUSIONS:** Patients with positive mediastinal lymph nodes on preoperative PET, but negative on histologic analysis, are not at increased risk of disease recurrence. Pathologic staging remains the standard.

[348]

TÍTULO / TITLE: - DNA adducts and combinations of multiple lung cancer at-risk alleles in environmentally exposed and smoking subjects.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Environ Mol Mutagen. 2013 Jul;54(6):375-83. doi: 10.1002/em.21788. Epub 2013 Jun 25.

●● Enlace al texto completo (gratis o de pago) [1002/em.21788](https://doi.org/10.1002/em.21788)

AUTORES / AUTHORS: - Peluso ME; Munnia A; Srivatanakul P; Jedpiyawongse A; Sangrajrang S; Ceppi M; Godschalk RW; van Schooten FJ; Boffetta P

INSTITUCIÓN / INSTITUTION: - Cancer Risk Factor Branch, Cancer Prevention and Research Institute, Florence, Italy.

RESUMEN / SUMMARY: - Interindividual variation in DNA adduct levels in individuals exposed to similar amounts of environmental carcinogens may be due to genetic variability. We analysed the influence of genes involved in determining/modifying DNA damage, including microsomal epoxide hydrolase1 (EPHX1) His139Arg, N-acetyl-transferase, NAD(P)H:quinone oxidoreductase1 (NQO1) Pro187Ser, manganese superoxide dismutase2 (MnSOD2) Val16Ala, and apurinic/apyrimidinic endonuclease1 (APE1) Asp148Glu polymorphisms in blood of 120 smokers. Subsequently, we examined the effects of the combinations of the variant alleles of EPHX, NQO1 and MnSOD2 together with the wild type allele of APE1 on DNA damage by calculating the “sum of at-risk alleles.” We reviewed the studies examining the relationships of DNA adducts with at-risk alleles in environmentally exposed subjects. Our findings showed that smokers carrying the EPHX1-139Arg and the NQO1-187Ser variants were significantly more likely to have higher adduct levels. Null associations were found with the other variants. Nevertheless, DNA adduct levels in smokers with ≥ 5 at-risk alleles were significantly different from those with fewer than two alleles. A similar picture emerged from studies of DNA adducts and at-risk alleles in environmentally exposed and smoking subjects. Certain at-risk allele combinations may confer a greater likelihood of increased levels of adducts after environmental insults. The increase in DNA adduct levels in susceptible subjects exposed to environmental carcinogens may reflect changes in the mechanisms that protect cells from the accumulation of genetic damage. Alterations of the physiological processes designed to maintain homeostasis may reduce the individual “genotoxic tolerance” to environmental challenges and result in phenotypes characterized by high levels of DNA adducts. Environ. Mol. Mutagen. 54:375-383, 2013. © 2013 Wiley Periodicals, Inc.

[349]

TÍTULO / TITLE: - Highly sensitive and noninvasive detection of epidermal growth factor receptor T790M mutation in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Chim Acta. 2013 Jul 23. pii: S0009-8981(13)00280-5. doi: 10.1016/j.cca.2013.07.012.

●● Enlace al texto completo (gratis o de pago) [1016/j.cca.2013.07.012](https://doi.org/10.1016/j.cca.2013.07.012)

AUTORES / AUTHORS: - He C; Zheng L; Xu Y; Liu M; Li Y; Xu J

INSTITUCIÓN / INSTITUTION: - Department of Respiratory, the Affiliated Shenzhen Bao'an Hospital of Southern Medical University, Shenzhen, Guangdong, 518101, China. Electronic address: hecheen@163.com.

RESUMEN / SUMMARY: - BACKGROUND: Epidermal growth factor receptor (EGFR) T790M mutation is associated with EGFR tyrosine kinase inhibitors resistance in non-small cell lung cancer (NSCLC). However, the tissue availability and technical feasibility limits the genotyping of EGFR T790M mutation in the clinical setting. The current study is, therefore, designed to develop a blood-based approach to detect the EGFR T790M mutation in advanced NSCLC patients. METHODS: The detection of EGFR T790M mutation is based on the principle of mutant-enriched PCR. We assessed the basic performance efficiency of this method, and confirmed its clinical applicability. EGFR T790M mutation in the plasma samples obtained from 33 patients with gefitinib-resistant NSCLC was analyzed by the both mutant-enriched PCR and direct sequencing. RESULTS: The sensitivity of this method for the detection of EGFR T790M mutation was as low as 0.1%. In the 33 subjects whose samples were analyzed, the mutant-enriched PCR indentified more EGFR T790M mutation than direct sequencing (36.4% vs. 6.1%, P=0.005), and the EGFR T790M mutation was more frequent in patients with EGFR activating mutations than those without EGFR activating mutations (62.5% vs. 11.8%, P=0.004). Patients with EGFR T790M mutation have a better prior efficacy of gefitinib compared to those without EGFR T790M mutation due to the occurrence of the EGFR activating mutations. CONCLUSION: The blood-based mutant-enriched PCR is an ideal noninvasive monitoring system for detecting EGFR T790M mutation for clinical application.

[350]

TÍTULO / TITLE: - Discoidin domain receptor 1 is associated with poor prognosis of non-small cell lung cancer and promotes cell invasion via epithelial-to-mesenchymal transition.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Med Oncol. 2013 Sep;30(3):626. doi: 10.1007/s12032-013-0626-4. Epub 2013 Jun 13.

●● Enlace al texto completo (gratis o de pago) [1007/s12032-013-0626-](#)

[4](#)

AUTORES / AUTHORS: - Miao L; Zhu S; Wang Y; Li Y; Ding J; Dai J; Cai H; Zhang D; Song Y

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Nanjing Drum Tower Hospital Affiliated to Medical School of Nanjing University, 321 Zhongshan Road, Nanjing 210008, China.

RESUMEN / SUMMARY: - Discoidin domain receptors (DDR) are a novel class of receptor tyrosine kinases that respond to several collagens and facilitate cell adhesion. DDR1 is highly expressed in a variety of human cancers, and it is clear that DDR1 is primarily expressed in epithelial cells including lung, colon and brain. Moreover, DDR1 expression can be stimulated by collagen types I, II, III, IV, V, VIII and XI, and aberrant signaling induced by DDR1 dysregulated

expression is involved in various steps of tumorigenesis. However, the molecular mechanism underlying the role of DDR1 in cancer development is not well documented. In this study, we found that the expression of DDR1 is upregulated in non-small cell lung cancer (NSCLC) tissues and cells when compared with counterpart normal tissues and cells. Furthermore, collagen I could induce DDR1 expression, and activated DDR1 promoted NSCLC cell migration and invasion, while knockdown of DDR1 by transfection with siRNA resulted in a significant decrease in cell migrativeness and invasiveness. Enhanced DDR1 expression mediated by collagen I could activate MMP-2, N-cadherin and vimentin expression, but reduce E-cadherin expression; however, inhibition of DDR1 expression could suppress MMP-2, N-cadherin and vimentin expression and induce E-cadherin activation. In conclusion, our findings indicated that upregulation of DDR1 induced by collagen I may contribute to the development and progression of NSCLC and this effect may be associated with increased invasiveness, at least in part, via promoting epithelial-to-mesenchymal transition.

[351]

TÍTULO / TITLE: - Overexpression of adenylate cyclase-associated protein 1 is associated with metastasis of lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Rep. 2013 Jul 9. doi: 10.3892/or.2013.2607.

●● Enlace al texto completo (gratis o de pago) [3892/or.2013.2607](#)

AUTORES / AUTHORS: - Tan M; Song X; Zhang G; Peng A; Li X; Li M; Liu Y; Wang C

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Shanghai Tenth People's Hospital, Tongji University, Shanghai 200072, P.R. China.

RESUMEN / SUMMARY: - Lung cancer ranks first in both prevalence and mortality rates among all types of cancer. Metastasis is the main cause of treatment failure. Biomarkers are critical to early diagnosis and prediction and monitoring of progressive lesions. Several biomarkers have been identified for lung cancer but none have been routinely used clinically. The present study assessed the diagnostic and prognostic value of cyclase-associated protein 1 (CAP1) for lung cancer. CAP1 mRNA abundance and protein content were determined by real-time PCR and western blot analysis and/or immunostaining in biopsy specimens (24 neoplastic and 6 non-neoplastic) freshly collected at surgical lung resection, in 82 pathologically banked lung cancer specimens and in cultured non-invasive (95-C) and invasive (95-D) lung cancer cells. Multivariate regression analysis was performed to correlate immunoreactive CAP1 signal with cancer type and stage. In vitro cell migration was performed to determine the effect of RNA interference-mediated CAP1 gene silencing on invasiveness of 95-D cells. These analyses collectively demonstrated that: i) both CAP1 mRNA abundance and protein content were significantly higher in neoplastic

compared to non-neoplastic specimens and in metastatic compared to non-metastatic specimens but not different between adenocarcinoma and squamous cell carcinoma; ii) immunoreactive CAP1 signal was significantly stronger in metastatic specimens and 95-D cells compared to non-metastatic specimens and 95-C cells; and iii) RNA interference-mediated CAP1 gene silencing adequately attenuated the invasive capacity of 95-D cells in vitro. These findings suggest that overexpression of CAP1 in lung cancer cells, particularly at the metastatic stage, may have significant clinical implications as a diagnostic/prognostic factor for lung cancer.

[352]

TÍTULO / TITLE: - Let-7c inhibits A549 cell proliferation through oncogenic TRIB2 related factors.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - FEBS Lett. 2013 Jul 11. pii: S0014-5793(13)00516-4. doi: 10.1016/j.febslet.2013.07.004.

●● Enlace al texto completo (gratis o de pago)

1016/j.febslet.2013.07.004

AUTORES / AUTHORS: - Wang PY; Sun YX; Zhang S; Pang M; Zhang HH; Gao SY; Zhang C; Lv CJ; Xie SY

INSTITUCIÓN / INSTITUTION: - Key Laboratory of Tumor Molecular Biology in Binzhou Medical University, Department of Biochemistry and Molecular Biology, Binzhou Medical University, YanTai, ShanDong 264003, PR China.

RESUMEN / SUMMARY: - MicroRNAs have tumor suppressive or oncogenic roles in carcinogenesis. This study aimed to investigate the mechanism of let-7c in suppressing lung cancer cell proliferation. First, let-7c was revealed to be able to inhibit lung adenocarcinoma cell proliferation significantly. TRIB2 was further demonstrated to be a novel target and negatively regulated by let-7c. As downstream signals of TRIB2, the activities of C/EBP-alpha and phosphorylated p38MAPK were increased obviously in let-7c-treated cells compared with controls. Our results demonstrate that, through regulating the expression of TRIB2 and its downstream factors, let-7c can effectively inhibit A549 cell proliferation in vitro and in vivo.

[353]

TÍTULO / TITLE: - Anti-tumor selectivity of a novel Tubulin and HSP90 dual-targeting inhibitor in non-small cell lung cancer models.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biochem Pharmacol. 2013 Aug 1;86(3):351-60. doi: 10.1016/j.bcp.2013.05.019. Epub 2013 Jun 3.

●● Enlace al texto completo (gratis o de pago) 1016/j.bcp.2013.05.019

AUTORES / AUTHORS: - Zhang Q; Zhai S; Li L; Li X; Zhou H; Liu A; Su G; Mu Q; Du Y; Yan B

INSTITUCIÓN / INSTITUTION: - School of Chemistry and Chemical Engineering, Shandong University, Jinan 250100, China.

RESUMEN / SUMMARY: - Dose-limiting toxicity is a main road blocker for successful cancer chemotherapy. By phenotype screening, a novel chemical agent 2-(2-Chlorophenylimino)-5-(4-dimethylamino-benzylidene) thiazolidin-4-one (CDBT) was found to strongly inhibit the proliferation of non-small cell lung cancer (NSCLC) cells H460 and H322 while displaying no obvious toxicity to normal fast-dividing fibroblast cells NHFB and WI-38 at a concentration 100-fold higher than its EC50 to NSCLC cells. CDBT targets microtubule and heat shock protein 90 (HSP90) simultaneously with moderate affinities compared to microtubule targeting Colchicine and HSP90 inhibitor 17-dimethylaminoethylamino-17-demethoxygeldanamycin (17-DMAG). CDBT blocks microtubule formation, decreases cancer-essential proteins CRAF-1, ERBB2 and phosphorylated AKT, and causes G2/M arrest and apoptosis. The moderate inhibitory effects of CDBT on targets require a higher cellular concentration of targets, a situation only exist in cancer cells. This accounts for its good cancer selectivity. Furthermore, CDBT effectively inhibits tumor growth by 62.4% relative to the vehicle control after i.p. administration at 30mg/kg for 11 days while showing no toxicity to normal tissues in NSCLC H460 xenograft mouse model.

[354]

TÍTULO / TITLE: - Lobe-Specific Mediastinal Nodal Dissection is Sufficient During Lobectomy by VATS or Thoracotomy for Early Stage Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chest. 2013 Jul 4. doi: 10.1378/chest.12-3069.

●● Enlace al texto completo (gratis o de pago) [1378/chest.12-3069](#)

AUTORES / AUTHORS: - Shapiro M; Kadakia S; Lim J; Breglio A; Wisnivesky JP; Kaufman A; Lee DS; Flores RM

RESUMEN / SUMMARY: - ABSTRACT BACKGROUND: Lobectomy with complete mediastinal lymphadenectomy is considered standard for patients with early stage non-small cell lung cancer (NSCLC). However, the benefits of complete lymphadenectomy are unproven. There is evidence suggesting predictable pattern of mediastinal nodal drainage. This study analyzed the frequency and pattern of mediastinal nodal disease and its impact on outcome in patients with early stage NSCLC. METHODS: Patients with clinical N0/N1 NSCLC staged with computed tomographic (CT) and positron emission tomography (PET) were identified. Disease involvement of resected nodal stations was recorded. Patterns of recurrence of patients who underwent lobectomy with complete mediastinal systematic lymph node sampling (SLNS) were compared to those who underwent lobe-specific mediastinal SLNS. RESULTS: From July 2004 to

April 2011 370 patients were identified. Complete SLNS was performed in 282 patients. Fifteen patients (5.3%) in the group with complete SLNS were found to have N2 disease after pathological evaluation. Patients with left sided tumors were more likely to have pathological N2 disease than patients with right sided tumors ($p=0.03$). Only 1 patient (0.36%) had positive N2 disease in the distal mediastinum while skipping lobe-specific mediastinal nodes. Also, patients with complete SLNS had similar rate of recurrence compared to the group that had lobe-specific mediastinal evaluation (20.6% vs. 18.2%, $p=0.68$).
CONCLUSIONS: Mediastinal N2 metastases follow predictable lobe-specific patterns in patients with negative preoperative CT and PET scans. Lobe-specific N2 nodal evaluation results in similar recurrence rate compared to complete mediastinal evaluation. Lobe-specific mediastinal nodal evaluation appears acceptable in patients with early stage NSCLC.

[355]

TÍTULO / TITLE: - Computed 88% TCP dose for SBRT of NSCLC from tumour hypoxia modelling.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Phys Med Biol. 2013 Jul 7;58(13):4611-20. doi: 10.1088/0031-9155/58/13/4611. Epub 2013 Jun 14.

●● Enlace al texto completo (gratis o de pago) [1088/0031-9155/58/13/4611](#)

AUTORES / AUTHORS: - Ruggieri R; Stavreva N; Naccarato S; Stavrev P

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Sacro Cuore-don Calabria Hospital, Via Don A Sempredoni 5, 37024 Negrar, VR, Italy.

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RESUMEN / SUMMARY: - In small NSCLC, 88% local control at three years from SBRT was reported both for schedule (20-22 Gy x3) (Fakiris et al 2009 Int. J. Radiat. Oncol. Biol. Phys. 75 677-82), actually close to (18-20 Gy x3) if density correction is properly applied, and for schedules (18 Gy x3) and (11 Gy x5) (Palma et al 2012 Int. J. Radiat. Oncol. Biol. Phys. 82 1149-56). Here, we compare our computed iso-TCP = 88% dose per fraction (d88) for three and five fractions (n) with such clinically adopted ones. Our TCP model accounts for tumour repopulation, at rate λ (d^{-1}), reoxygenation of chronic hypoxia (ch-), at rate a (d^{-1}) and fluctuating oxygenation of acute hypoxia (ah-), with hypoxic fraction ϕ of the acutely hypoxic fractional volume (AHF). Out of the eight free parameters whose values we had fitted to in vivo animal data (Ruggieri et al 2012 Int. J. Radiat. Oncol. Biol. Phys. 83 1603-8), we here maintained ($a(d^{-1})$, C , OERch, OERah/OERch, AHF, CHF) = (0.026, 0.17, 1.9, 2.2, 0.033, 0.145) while rescaling the initial total number of clonogens ($N(o)$) according to the ratio of NSCLC on animal median tumour volumes. From the clinical literature, the usually assumed ($\alpha/\beta(Gy)$, $\lambda(d^{-1})$) = (10, 0.217) for the well-oxygenated (o-)cells were taken. By normal (lognormal)

random sampling of all parameter values over their 95% C.I., the uncertainty on present $d_{88}(n)$ computations was estimated. Finally, SBRT intra-tumour dose heterogeneity was simulated by a 1.3 dose boost ratio on 50% of tumour volume. Computed $d_{88}(+/-1\sigma)$ were 19.0 (16.3; 21.7) Gy, for $n = 3$; 10.4 (8.7; 12.1) Gy, for $n = 5$; 5.8 (5.2; 6.4) Gy, for $n = 8$; 4.0 (3.6; 4.3) Gy, for $n = 12$. Furthermore, the iso-TCP = 88% total dose, $D_{88}(n) = d_{88}(n)*n$, exhibited a relative minimum around $n = 8$. Computed $d_{88}(n = 3, 5)$ are strictly consistent with the clinically adopted ones, which confirms the validity of LQ-model-based TCP predictions at the doses used in SBRT if a highly radioresistant cell subpopulation is properly modelled. The computed minimum $D_{88}(n)$ around $n = 8$ suggests the adoption of $6 \leq n \leq 10$ instead of $n = 3$ in SBRT of small NSCLC tumours.

[356]

TÍTULO / TITLE: - First-Pass CT Perfusion in Small Peripheral Lung Cancers: Effect of the Temporal Interval between Scan Acquisitions on the Radiation Dose and Quantitative Vascular Parameters.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Acad Radiol. 2013 Aug;20(8):972-9. doi: 10.1016/j.acra.2013.05.002.

●● Enlace al texto completo (gratis o de pago) [1016/j.acra.2013.05.002](#)

AUTORES / AUTHORS: - Shan F; Xing W; Qiu J; Zhang Z; Yang S

INSTITUCIÓN / INSTITUTION: - Department of Radiology, The Third Affiliated Hospital of Suzhou University, Changzhou, P. R. China.

RESUMEN / SUMMARY: - **RATIONALE AND OBJECTIVES:** To evaluate the effect of the temporal interval (TI) between scan acquisitions on the radiation dose and vascular parameters of computed tomography perfusion (CTP) in small peripheral lung cancers. **MATERIALS AND METHODS:** With 7 excluded, 40 patients with peripheral lung cancer (diameter ≤ 4 cm) prospectively underwent a 30-second CTP study. Vascular parameters were calculated for TI datasets of 0, 1, 1.5, 2, 2.5, and 3.5 seconds. With the TI and tumor diameter as fixed effects, univariate general linear model analysis was used to compare the vascular parameters at interval datasets with the reference CTP of 0 seconds. **RESULTS:** The TI had an impact on the blood flow and transit time ($P < .001$ for both) but not on the blood volume and permeability surface area. The diameter influenced four vascular parameters ($P < .001$ for all). Compared to the reference, no statistical differences were found in the four parameters at intervals of 0.5, 1, and 1.5 seconds ($P > .05$ for all). In addition, blood flow was overestimated and transit was underestimated with increasing intervals of 2, 2.5, and 3.5 seconds ($P < .05$ for all), but not the remaining parameters. An increased TI of 0.5-1.5 seconds resulted in an estimated radiation dose reduction of 50-73%. **CONCLUSION:** The TI of 1.5 seconds between scan

acquisitions in first-pass phase of CTP could be used to optimally balance the radiation dose and quantitative estimation in small peripheral lung cancers.

[357]

TÍTULO / TITLE: - Prognostic impact and initial recurrence site of lymphovascular and visceral pleural invasion in surgically resected stage I non-small-cell lung carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cardiothorac Surg. 2013 Jun 13.

●● Enlace al texto completo (gratis o de pago) [1093/ejcts/ezt309](#)

AUTORES / AUTHORS: - Yanagawa N; Shiono S; Abiko M; Ogata SY; Sato T; Tamura G

INSTITUCIÓN / INSTITUTION: - Department of Pathology and Laboratory Medicine, Yamagata Prefectural Central Hospital, Yamagata, Japan.

RESUMEN / SUMMARY: - **OBJECTIVES:** This study aimed to analyse and validate the prognostic impact and effect of the initial recurrence site of lymphovascular and visceral pleural invasion (VPI) on survival outcomes for Stage I non-small-cell lung carcinoma (NSCLC). **METHODS:** We retrospectively reviewed 433 patients undergoing resection of Stage I NSCLC. The relationship between the clinicopathological background and the pathological variables, lymphovascular invasion (LVI) and VPI, was evaluated by univariate and multivariate analyses. **RESULTS:** Lymphovascular and VPI was observed in 41 and 45 patients, respectively. On univariate analysis, the presence of LVI was associated with a significant decrease in relapse-free survival (RFS) ($P < 0.001$) and overall survival (OS) ($P < 0.001$). The RFS of the patients of Stage IB with LVI was worse than the RFS of those of Stage IIA (T2aN1 and T2bN0)/IIB (T3N0), and similar to the RFS of those of Stage IIB (T2bN1). The presence of VPI was also associated with a significant decrease in RFS ($P < 0.001$) and OS ($P = 0.01$). On multivariate analysis, LVI was found to be an independent predictor of both decreased RFS and decreased OS. However, VPI was not an independent predictor of both. Recurrence was seen in 68 patients. As an initial recurrence site, distant recurrence was seen in 32 patients and local recurrence, in 36. The proportion of local recurrence was significantly higher in the patients with VPI than in those without VPI compared with between the patients with LVI and those without LVI. **CONCLUSIONS:** We propose that LVI and/or VPI may be a candidate marker to determine adjuvant therapy or a more careful follow-up for these patients.

[358]

TÍTULO / TITLE: - Challenges and controversies in the diagnosis of mesothelioma: Part 1. Cytology-only diagnosis, biopsies,

immunohistochemistry, discrimination between mesothelioma and reactive mesothelial hyperplasia, and biomarkers.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Pathol. 2013 Jun 27.

●● Enlace al texto completo (gratis o de pago) [1136/jclinpath-2012-201303](#)

AUTORES / AUTHORS: - Henderson DW; Reid G; Kao SC; van Zandwijk N; Klebe S

INSTITUCIÓN / INSTITUTION: - Department of Surgical Pathology, SA Pathology, Flinders Medical Centre, Bedford Park, South Australia.

RESUMEN / SUMMARY: - The detection of neoplastic invasion remains the linchpin for a clear diagnosis of malignant mesothelioma. Cytology-only diagnosis of epithelioid mesothelioma on aspirated effusion fluid remains controversial. A major problem is poor sensitivity, although cytodiagnosis is achievable in many cases at a high order of specificity, especially when a large volume of effusion fluid is submitted for cytological evaluation, enabling the preparation of cell-block sections for immunohistochemical investigation and when the cytological findings can be correlated with imaging studies to assess the anatomical distribution of the lesion and evidence of nodularity of the pleural disorder and, in some cases, to demonstrate evidence of invasion. Although 'positive' and 'negative' immunohistochemical markers have proved remarkably effective in distinguishing between epithelioid mesothelioma and secondary carcinoma and other malignant tumours metastatic to serosal membranes, no mesothelial marker has 100% sensitivity and specificity for mesothelioma diagnosis, so that panels of 'positive' antibodies and markers with negative predictive value are required. At present, no tissue or serum marker (including the molecular detection of p16/CDKN2A) has been proved to have sufficient specificity, consistency and reproducibility that it can replace evidence of invasion as the decisive marker for diagnosis when there is any uncertainty concerning a diagnosis of epithelioid mesothelioma and in the case of atypical fibrous lesions of the pleura (especially collagen-rich lesions, namely fibrous pleuritis vs desmoplastic mesothelioma), in which even the assessment of invasion can be problematical as illustrated in part 2 of this review.

[359]

TÍTULO / TITLE: - Downregulation of BTG3 in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biochem Biophys Res Commun. 2013 Jul 19;437(1):173-8. doi: 10.1016/j.bbrc.2013.06.062. Epub 2013 Jun 26.

●● Enlace al texto completo (gratis o de pago) [1016/j.bbrc.2013.06.062](#)

AUTORES / AUTHORS: - Chen X; Chen G; Cao X; Zhou Y; Yang T; Wei S

INSTITUCIÓN / INSTITUTION: - Department of Oncology, Henan Cancer Hospital, The Affiliated Cancer Hospital of Zhengzhou University, Zhengzhou, Henan

Province 450008, PR China; Center of Hepatic Surgery, People's Hospital of Zhengzhou, Zhengzhou 450003, PR China. Electronic address: chenxboncology@163.com.

RESUMEN / SUMMARY: - BTG3 is identified as a tumor suppressor gene in some malignancies. Btg3-deficient mice display a higher incidence of lung cancer. These results suggest that BTG3 plays an important role in lung tumorigenesis, although the underlying mechanisms are unknown. The BTG3 expression was detected using immunohistochemical staining and our results showed that the expression of BTG3 was reduced in lung cancer compared to benign lung tissues. We identified two BTG3 isoforms present in lung cancer: Full-length BTG3 and BTG3b lacking the 44 amino acids. BTG3 was predominantly expressed in benign lung tissues, whereas its expression was generally undetectable in lung cancer and cancer cell lines. Functional analysis revealed that BTG3 but not BTG3b inhibited lung cancer growth. Our results disclosed an important role of BTG3 in lung tumorigenesis.

[360]

TÍTULO / TITLE: - Histone deacetylases inhibitor trichostatin A increases the expression of Dleu2/miR-15^a/16-1 via HDAC3 in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Cell Biochem. 2013 Jul 19.

●● Enlace al texto completo (gratis o de pago) [1007/s11010-013-1762-](http://1007/s11010-013-1762-z)

[Z](#)

AUTORES / AUTHORS: - Chen CQ; Chen CS; Chen JJ; Zhou LP; Xu HL; Jin WW; Wu JB; Gao SM

INSTITUCIÓN / INSTITUTION: - Laboratory of Internal Medicine, The First Affiliated Hospital of Wenzhou Medical College, 2, FuXue Road, Wenzhou, 325000, China.

RESUMEN / SUMMARY: - Histone deacetylases (HDACs) inhibitor is a promising new approach to the treatment of lung cancer therapy via inhibiting cell growth and inducing apoptosis. miR-15^a and miR-16-1 are important tumor suppressors through modulating B cell lymphoma 2 (Bcl-2), Cyclin D1, D2, and others. However, whether HDACs inhibitor modulates the expression of miR-15^a/16-1 in lung cancer is still unknown. The purpose of our study was to identify a new miRNA-mediated mechanism which plays an important role in the anti-cancer effects of HDACs inhibitor. We found HDACs inhibitors trichostatin A (TSA) and sodium butyrate upregulated the expression of miR-15^a/16-1, residing in the host tumor suppressor Dleu2 gene, through increasing the histone acetylation in the region of Dleu2/miR-15^a/16-1 promoter in lung cancer cells. Moreover, among class Iota HDACs subtypes, only knockdown of HDAC3 by specific siRNA increased the hyperacetylation of Dleu2/miR-15^a/16-1 promoter region and finally resulted in the upregulation of miR-15^a/16-1. Furthermore, overexpression of miR-15^a/16-1, which were always deleted or

downregulated in lung cancer cells, effectively suppressed cell growth and reduced colony formation. Finally, TSA reduced the expression of Bcl-2, an important survival protein in lung cancer cells, partly through upregulation of miR-15^a/16-1. Therefore, this offers a therapeutic strategy that lung cancer patients who exhibit low level of miR-15^a/16-1 or high activity of HDACs may benefit from HDACs inhibitor-based therapy.

[361]

TÍTULO / TITLE: - Acquired resistance to epidermal growth factor receptor tyrosine kinase inhibitors in EGFR-mutant non-small cell lung cancer: A new era begins.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Treat Rev. 2013 Jul 3. pii: S0305-7372(13)00125-4. doi: 10.1016/j.ctrv.2013.06.002.

●● Enlace al texto completo (gratis o de pago) [1016/j.ctrv.2013.06.002](#)

AUTORES / AUTHORS: - Remon J; Moran T; Majem M; Reguart N; Dalmau E; Marquez-Medina D; Lianes P

INSTITUCIÓN / INSTITUTION: - Medical Oncology Department, Hospital de Mataro, Carretera de la Cirera, s/n, 08304 Mataro, Barcelona, España. Electronic address: jremon@csgm.cat.

RESUMEN / SUMMARY: - The discovery of mutated oncogenes has opened up a new era for the development of more effective treatments for non-small cell lung cancer patients (NSCLC) harbouring EGFR mutations. However, patients with EGFR-activating mutation ultimately develop acquired resistance (AR). Several studies have identified some of the mechanisms involved in the development of AR to EGFR tyrosine kinase inhibitors (TKI) that can be potential therapeutic strategies, although in up to 30% of cases, the underlying mechanism of AR are still unexplained. In this review we aim to summarize the main mechanisms of AR to EGFR TKI and some clinical strategies that can be used in the daily clinical practice to overcome this resistance and try to prolong the outcomes in this subgroup of patients.

[362]

TÍTULO / TITLE: - Frequent TMPRSS2-ERG rearrangement in prostatic small cell carcinoma detected by fluorescence in situ hybridization: the superiority of fluorescence in situ hybridization over ERG immunohistochemistry.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Hum Pathol. 2013 Jul 11. pii: S0046-8177(13)00191-3. doi: 10.1016/j.humpath.2013.05.005.

●● Enlace al texto completo (gratis o de pago)

[1016/j.humpath.2013.05.005](#)

AUTORES / AUTHORS: - Schelling LA; Williamson SR; Zhang S; Yao JL; Wang M; Huang J; Montironi R; Lopez-Beltran A; Emerson RE; Idrees MT; Osunkoya AO; Man YG; Maclennan GT; Baldrige LA; Comperat E; Cheng L

INSTITUCIÓN / INSTITUTION: - Department of Pathology and Laboratory Medicine, Indiana University School of Medicine, Indianapolis, IN 46202, USA.

RESUMEN / SUMMARY: - Small cell carcinoma of the prostate is both morphologically and immunohistochemically similar to small cell carcinoma of other organs such as the urinary bladder or lung. TMPRSS2-ERG gene fusion appears to be a highly specific alteration in prostatic carcinoma that is frequently shared by small cell carcinoma. In adenocarcinoma, immunohistochemistry for the ERG protein product has been reported to correlate well with the presence of the gene fusion, although in prostatic small cell carcinoma, this relationship is not completely understood. We evaluated 54 cases of small cell carcinoma of the prostate and compared TMPRSS2-ERG gene fusion status by fluorescence in situ hybridization (FISH) to immunohistochemical staining with antibody to ERG. Of 54 cases of prostatic small cell carcinoma, 26 (48%) were positive for TMPRSS2-ERG gene fusion by FISH and 12 (22%) showed overexpression of ERG protein by immunohistochemistry. Of the 26 cases positive by FISH, 11 were also positive for ERG protein by immunohistochemistry. One tumor was positive by immunohistochemistry but negative by FISH. Urinary bladder small cell carcinoma (n = 25) showed negative results by both methods; however, 2 of 14 small cell carcinomas of other organs (lung, head, and neck) showed positive immunohistochemistry but negative FISH. Positive staining for ERG by immunohistochemistry is present in a subset of prostatic small cell carcinomas and correlates with the presence of TMPRSS2-ERG gene fusion. Therefore, it may be useful in confirming prostatic origin when molecular testing is not accessible. However, sensitivity and specificity of ERG immunohistochemistry in small cell carcinoma are decreased compared to FISH.

[363]

TÍTULO / TITLE: - A population-based study of hospital length of stay and emergency readmission following surgery for non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cardiothorac Surg. 2013 Jul 25.

●● Enlace al texto completo (gratis o de pago) [1093/ejcts/ezt389](#)

AUTORES / AUTHORS: - McDevitt J; Kelly M; Comber H; Kelleher T; Dwane F; Sharp L

INSTITUCIÓN / INSTITUTION: - National Cancer Registry Ireland, Cork, Ireland.

RESUMEN / SUMMARY: - OBJECTIVES: We conducted a population-based analysis of time trends in length of stay (LOS), predictors of prolonged LOS and emergency readmission following resection for non-small-cell lung cancer (NSCLC). METHODS: Incident lung cancers (ICDO2:C34), diagnosed between

2002 and 2008, were identified from the National Cancer Registry (NCR) of Ireland, and linked to hospital in-patient episodes (HIPE). For those with NSCLC who underwent lung resection, the associated hospital episode was identified. Factors predicting longer LOS (upper quartile, >20 days), and emergency readmission within 28 days of the index procedure (IP) were investigated using Poisson regression. RESULTS: A total of 1284 patients underwent resection. Eighty-four (7%) subsequently died in hospital and 1200 (93%) were discharged. Hundred and nineteen of 1200 (10%) were readmitted as an emergency within 28 days of discharge. Median LOS after the IP was 13 days (inter-decile range: 7-35). Risk of prolonged LOS was significantly greater in patients >75 years, resident in an area of highest deprivation, with 2+ comorbidities, who had undergone surgery in a lower-volume hospital, and died in hospital subsequent to the IP. Emergency readmission was significantly more likely in patients who were resident in an area of highest deprivation, with 2+ comorbidities, and had Stage III disease or worse. The main reasons for emergency readmission were: pulmonary complications (29%), cardio/cerebrovascular events (21%) or infection (20%). CONCLUSIONS: Half of the patients had a LOS in excess of 13 days, which was longer than any other country with published data. Patient and health-service factors were associated with prolonged LOS, while patient and tumour characteristics were associated with risk of emergency readmission. Deprivation was a conspicuous determinant of both LOS and readmission.

[364]

TÍTULO / TITLE: - Down-regulation of ribosomal protein L22 in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Med Oncol. 2013 Sep;30(3):646. doi: 10.1007/s12032-013-0646-0. Epub 2013 Jun 25.

●● Enlace al texto completo (gratis o de pago) [1007/s12032-013-0646-0](#)

AUTORES / AUTHORS: - Yang M; Sun H; Wang H; Zhang S; Yu X; Zhang L
INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, The Affiliated Changzhou No.2 People's Hospital, Nanjing Medical University, Changzhou, 213000, China, cougermx@gmail.com.

RESUMEN / SUMMARY: - Ribosomal protein L22 (RPL22), an RNA-binding protein, is a constituent of the 60S large ribosomal subunit. As reported, RPL22 is not required in protein synthesis, and mutations of RPL22 were the main cause of macrolide resistance in bacteria. In vertebrates, RPL22 mutation might increase the proliferation of cells and then increase cancer risk. However, to our knowledge, RPL22 has not been implicated in any lung diseases, especially in lung cancer. In this study, we compared the expression of RPL22 gene in non-small cell lung cancer (NSCLC) tissues, plasma as well as human

lung cancer cell line LTP-a-2 with that in normal lung tissues and cells, using real-time RT-qPCR, Western blot, quantitative immunohistochemistry analysis, and ELISA. Our studies showed that the expression of RPL22 was significantly down-regulated in mRNA and protein expression level in NSCLC; however, there was no significant difference of RPL22 levels in plasma between normal and NSCLC patients. Further analysis indicated that down-regulation of RPL22 might be involved in the carcinogenesis of NSCLC, yet not an effective biomarker in plasma for early diagnosis.

[365]

TÍTULO / TITLE: - Lung cancer following lung transplant: Single institution 10 year experience.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jul 4. pii: S0169-5002(13)00250-X. doi: 10.1016/j.lungcan.2013.05.018.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.018](#)

AUTORES / AUTHORS: - Belli EV; Landolfo K; Keller C; Thomas M; Odell J

INSTITUCIÓN / INSTITUTION: - Department of Surgery, Mayo Clinic Florida, 4500 San Pablo Boulevard, Jacksonville, FL 32224, United States. Electronic address: belli.erol@mayo.edu.

RESUMEN / SUMMARY: - BACKGROUND: Lung cancer following lung transplantation is an infrequent occurrence of post-transplant neoplasia. Tumors are classified based on donor or recipient origin. Recipient tumors can be diagnosed in explanted specimens or found in contralateral native lungs which remain in place during single lung transplant (SLTx). The aim of our study was to review our institution's incidence of post lung transplant lung cancer, describe tumor histology, and review our experience with their outcomes. METHODS: A total of 335 lung transplants from 2001 to 2010 were reviewed. Patients were identified with a post-transplant diagnosis of lung cancer, neoplasia, or mass. Fifteen patients were identified; two were excluded due to concomitant cancers with which the lung cancer would represent a metastasis. Retrospective chart review was undertaken for thirteen patients for descriptive statistics, tumor characteristics and overall survival. RESULTS: Overall incidence of lung cancer following transplant was 13 cases (3.88%). Six tumors were found in native explanted lungs and six developed subsequently in native lungs. One tumor was confirmed to be of donor origin. Histology included squamous cell in five (38.4%), adenocarcinoma in four (30.7%), and one patient each with adenosquamous (7.6%), carcinoid (7.6%), small cell (7.6%), or malignant solitary fibrous tumor (7.6%). Mean age at transplant was 65+/-3 years. Mean time from transplant to diagnosis is reported as 241+/-7 days (range 1-1170). Each patient had at least a 20 pack year smoking history with a mean of 45+/-3 years. One-year survival for those with lung cancer following transplant was

42.8% while 1 year survival of all lung transplants at our institution is 85.7%.
CONCLUSION: Lung cancer incidentally found at the time of transplant or following transplantation is a serious complication with a noted effect on overall survival. The infrequent occurrence of donor tumors represents an adequate screening process of potential young donor lungs. The recognition of cancers in explanted specimens brings to question policies regarding screening of potential recipients with extensive smoking history. A high index of suspicion for native tumors is needed when conducting post-transplant surveillance as these tumors tend to be stage 4 at time diagnosis.

[366]

TÍTULO / TITLE: - Identification of HLA ligands and T-cell epitopes for immunotherapy of lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Immunol Immunother. 2013 Jul 2.

●● Enlace al texto completo (gratis o de pago) [1007/s00262-013-1454-](http://dx.doi.org/10.1007/s00262-013-1454-2)

[2](#)

AUTORES / AUTHORS: - Neumann A; Horzer H; Hillen N; Klingel K; Schmid-Horch B; Buhning HJ; Rammensee HG; Aebert H; Stevanovic S

INSTITUCIÓN / INSTITUTION: - Department of Immunology, Interfaculty Institute for Cell Biology, University of Tubingen, Auf der Morgenstelle 15, Tubingen, 72076, Germany.

RESUMEN / SUMMARY: - INTRODUCTION: Lung cancer is the most common cancer worldwide. Every year, as many people die of lung cancer as of breast, colon and rectum cancers combined. Because most patients are being diagnosed in advanced, not resectable stages and therefore have a poor prognosis, there is an urgent need for alternative therapies. Since it has been demonstrated that a high number of tumor- and stromal-infiltrating cytotoxic T cells (CTLs) is associated with an increased disease-specific survival in lung cancer patients, it can be assumed that immunotherapy, e.g. peptide vaccines that are able to induce a CTL response against the tumor, might be a promising approach. METHODS: We analyzed surgically resected lung cancer tissues with respect to HLA class I- and II-presented peptides and gene expression profiles, aiming at the identification of (novel) tumor antigens. In addition, we tested the ability of HLA ligands derived from such antigens to generate a CTL response in healthy donors. RESULTS: Among 170 HLA ligands characterized, we were able to identify several potential targets for specific CTL recognition and to generate CD8+ T cells which were specific for peptides derived from cyclin D1 or protein-kinase, DNA-activated, catalytic polypeptide and lysed tumor cells loaded with peptide. CONCLUSIONS: This is the first molecular analysis of HLA class I and II ligands ex vivo from human lung cancer tissues which reveals known and novel tumor antigens able to elicit a CTL response.

[367]

TÍTULO / TITLE: - Expression and significance of miRNA-21 and BTG2 in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumour Biol. 2013 Jul 16.

- Enlace al texto completo (gratis o de pago) [1007/s13277-013-0992-](#)

[8](#)

AUTORES / AUTHORS: - Sun Q; Hang M; Guo X; Shao W; Zeng G

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Wuxi 2nd People's Hospital, Nanjing Medical University, Wuxi, China, sunqingwx@163.com.

RESUMEN / SUMMARY: - This study investigates the expression of micro-ribonucleic acid-21 (miRNA-21) and B cell translocation gene 2 (BTG2) in lung cancer cells. We examined the impact of miRNA-21 on biological characteristics of lung cancer cells, such as growth, proliferation, apoptosis, and invasion. The expression of miRNA-21 and BTG2 protein in lung cancer cell lines (A549, HCC827, NCI-H292, and 95-D) was examined using quantitative reverse transcription-polymerase chain reaction and Western blot analysis, respectively. Subsequently, the regulatory role of miRNA-21 on BTG2 was explored by inhibiting miRNA-21 expression in 95-D cells using miRNA-21-antisense oligonucleotides (miRNA-21 ASO). The impact of miRNA-21 on the biological characteristics of 95-D cells was further studied using methylthiazol tetrazolium assays, flow cytometry, and Transwell invasion chamber assays. The impact of miRNA-21 on the expression of cyclin D1, caspase-3, and matrix metalloprotease-9 (MMP9) was also studied. miRNA-21 expression was significantly higher in lung cancer cell lines (A549, HCC827, NCI-H282, and 95-D) than that in normal human bronchial epithelial cells (HBE; $p < 0.05$). The pattern of BTG2 protein expression was exactly the opposite of miRNA-21 expression in lung cancer cells. BTG2 was highly expressed in HBE cells and was expressed at very low levels in lung cancer cell lines (A549, HCC827, NCI-H292, and 95-D). High miRNA-21 expression may inhibit BTG2 protein expression, whereas the inhibition of miRNA-21 expression may promote BTG2 protein expression in 95-D cells. Cell viability and invasion of 95-D cells were significantly lower in the miRNA-21 ASO-transfected group than that in the control ASO-transfected group and untransfected group ($p < 0.05$). The number of apoptotic cells was significantly higher in the miRNA-21 ASO-transfected group than that in the control ASO-transfected and untransfected groups ($p < 0.05$). The expression level of cyclin D1 and MMP9 in 95-D cells was significantly lower in the miRNA-21 ASO-transfected group than in the control ASO-transfected and untransfected groups ($p < 0.05$). Meanwhile, caspase-3 expression was significantly higher in the miRNA-21 ASO-transfected group than that in the control ASO-transfected and untransfected groups ($p < 0.05$). miRNA-21 overexpression may inhibit the BTG2 gene in lung cancer cells.

miRNA-21 may promote cell proliferation and invasion and inhibit cell apoptosis in 95-D cells.

[368]

TÍTULO / TITLE: - High NOTCH activity induces radiation resistance in non small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Radiother Oncol. 2013 Jul 25. pii: S0167-8140(13)00299-5. doi: 10.1016/j.radonc.2013.06.020.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1016/j.radonc.2013.06.020](#)

AUTORES / AUTHORS: - Theys J; Yahyanejad S; Habets R; Span P; Dubois L; Paesmans K; Kattenbeld B; Cleutjens J; Groot AJ; Schuurbiens OC; Lambin P; Bussink J; Vooijs M

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology (MAASTRO Lab), GROW - School for Oncology and Developmental Biology, Maastricht University Medical Center (MUMC+), The Netherlands. Electronic address: jan.theys@maastrichtuniversity.nl.

RESUMEN / SUMMARY: - BACKGROUND AND PURPOSE: Patients with advanced NSCLC have survival rates <15%. The NOTCH pathway plays an important role during lung development and physiology but is often deregulated in lung cancer, making it a potential therapeutic target. We investigated NOTCH signaling in NSCLC and hypothesized that high NOTCH activity contributes to radiation resistance. MATERIALS AND METHODS: NOTCH signaling in NSCLC patient samples was investigated using quantitative RT-PCR. H460 NSCLC cells with either high or blocked NOTCH activity were generated and their radiation sensitivity monitored using clonogenic assays. In vivo, xenograft tumors were irradiated and response assessed using growth delay. Microenvironmental parameters were analyzed by immunohistochemistry. RESULTS: Patients with high NOTCH activity in tumors showed significantly worse disease-free survival. In vitro, NOTCH activity did not affect the proliferation or intrinsic radiosensitivity of NSCLC cells. In contrast, xenografts with blocked NOTCH activity grew slower than wild type tumors. Tumors with high NOTCH activity grew significantly faster, were more hypoxic and showed a radioresistant phenotype. CONCLUSIONS: We demonstrate an important role for NOTCH in tumor growth and correlate high NOTCH activity with poor prognosis and radioresistance. Blocking NOTCH activity in NSCLC might be a promising intervention to improve outcome after radiotherapy.

[369]

TÍTULO / TITLE: - Whole-exome sequencing to identify novel somatic mutations in squamous cell lung cancers.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Oncol. 2013 Sep;43(3):755-64. doi: 10.3892/ijo.2013.1991. Epub 2013 Jun 25.

●● Enlace al texto completo (gratis o de pago) [3892/ijo.2013.1991](#)

AUTORES / AUTHORS: - Zheng CX; Gu ZH; Han B; Zhang RX; Pan CM; Xiang Y; Rong XJ; Chen X; Li QY; Wan HY

INSTITUCIÓN / INSTITUTION: - Department of Respiration, Ruijin Hospital Affiliated to Shanghai Jiaotong University School of Medicine, Shanghai 200025, P.R. China.

RESUMEN / SUMMARY: - Squamous cell lung cancer is a major histotype of non-small cell lung cancer (NSCLC) that is distinct from lung adenocarcinoma. We used whole-exome sequencing to identify novel non-synonymous somatic mutations in squamous cell lung cancer. We identified 101 single-nucleotide variants (SNVs) including 77 non-synonymous SNVs (67 missense and 10 nonsense mutations) and 11 INDELs causing frameshifts. We also found four SNVs located within splicing sites. We verified 62 of the SNVs (51 missense, 10 nonsense and 1 splicing-site mutation) and 10 of the INDELs as somatic mutations in lung cancer tissue. Sixteen of the mutated genes were also mutated in at least one patient with a different type of lung cancer in the Catalogue of Somatic Mutation in Cancer (COSMIC) database. Four genes (LPHN2, TP53, MYH2 and TGM2) were mutated in approximately 10% of the samples in the COSMIC database. We identified two missense mutations in C10orf137 and MS4A3 that also occurred in other solid-tumor tissues in the COSMIC database. We found another somatic mutation in EP300 that was mutated in 4.2% of the 2,020 solid-tumor samples in the COSMIC database. Taken together, our results implicate TP53, EP300, LPHN2, C10orf137, MYH2, TGM2 and MS4A3 as potential driver genes of squamous cell lung cancer.

[370]

TÍTULO / TITLE: - Lung cancer stigma, anxiety, depression and symptom severity.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncology. 2013;85(1):33-40. doi: 10.1159/000350834. Epub 2013 Jun 29.

●● Enlace al texto completo (gratis o de pago) [1159/000350834](#)

AUTORES / AUTHORS: - Cataldo JK; Brodsky JL

INSTITUCIÓN / INSTITUTION: - Department of Physiological Nursing, University of California San Francisco School of Nursing, San Francisco, Calif., USA.

RESUMEN / SUMMARY: - Objectives: Compared to other cancers, lung cancer patients report the highest levels of psychological distress and stigma. Few studies have examined the relationship between lung cancer stigma (LCS) and symptom burden. This study was designed to investigate the relationship between LCS, anxiety, depression and physical symptom severity. Methods:

This study employed a cross-sectional, correlational design to recruit patients online from lung cancer websites. LCS, anxiety, depression and physical symptoms were measured by patient self-report using validated scales via the Internet. Hierarchical multiple regression was performed to investigate the individual contributions of LCS, anxiety and depression to symptom severity. Results: Patients had a mean age of 57 years; 93% were Caucasian, 79% were current or former smokers, and 74% were female. There were strong positive relationships between LCS and anxiety ($r = 0.413$, $p < 0.001$), depression ($r = 0.559$, $p < 0.001$) and total lung cancer symptom severity ($r = 0.483$, $p < 0.001$). Although its contribution was small, LCS provided a unique and significant explanation of the variance in symptom severity beyond that of age, anxiety and depression, by 1.3% ($p < 0.05$). Conclusions: Because LCS is associated with psychosocial and physical health outcomes, research is needed to develop interventions to assist patients to manage LCS and to enhance their ability to communicate effectively with clinicians.

[371]

TÍTULO / TITLE: - Inhalation delivery of Telmisartan enhances intratumoral distribution of nanoparticles in lung cancer models.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Control Release. 2013 Jul 7. pii: S0168-3659(13)00393-3. doi: 10.1016/j.jconrel.2013.06.036.

●● Enlace al texto completo (gratis o de pago)

[1016/j.jconrel.2013.06.036](#)

AUTORES / AUTHORS: - Godugu C; Patel AR; Doddapaneni R; Marepally S; Jackson T; Singh M

INSTITUCIÓN / INSTITUTION: - Department of Pharmaceutics, College of Pharmacy and Pharmaceutical Sciences, Florida A & M University, Tallahassee, 32307, USA.

RESUMEN / SUMMARY: - The purpose of the present study was to evaluate the effect of Telmisartan (Tel) and Losartan (Los) on nanoparticle intratumoral distribution and anticancer effects in lung cancer. A549 lung tumor cells were orthotopically and metastatically administered to Nu/nu mice. Fluorescent polystyrene nanoparticles (FPNPs, size ~200nm) beads were used to study their intratumoral distribution after Tel and Los treatments. Animals were administered with FPNPs and after 2h, FPNPs intratumoral distribution was studied by fluorescent microscopy. Tel (~1.12mg/kg) and Los (~4.5mg/kg) were administered by inhalation delivery at alternative days for 4weeks to tumor bearing animals. Collagen-1, transforming growth factor beta 1 (TGF-beta1), cleaved caspase-3, Vimentin and E-Cadherin expressions were studied by western blotting. To correlate the AT1 receptor blockage to anticancer effects, VEGF levels and microvessel densities (MVD) were quantified. Los and Tel treated group resulted in the 5.33 and 14.33 fold increase respectively in the

FPNPs intratumoral distribution as compared to the controls. Tel treatment attenuated 2.23 and 1.70 fold Collagen 1 expression compared to untreated control and Los groups, respectively. Further, in Tel and Los treated groups, the TGF-beta1 active levels were significantly ($p < 0.05$) decreased. Tel (at four times less dose) was 1.89 and 1.92 fold superior in anticancer activity to Los respectively in A549 orthotopic and metastatic tumor models ($p < 0.05$) when given by inhalation route. Tel, by virtue of its dual pharmacophoric nature could be an ideal candidate for combination therapy to improve the nanoparticle intratumoral distribution and anticancer effects.

[372]

TÍTULO / TITLE: - Systemic delivery of sticky siRNAs targeting the cell cycle for lung tumor metastasis inhibition.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Control Release. 2013 Sep 10;170(2):183-90. doi: 10.1016/j.jconrel.2013.05.015. Epub 2013 May 29.

- Enlace al texto completo (gratis o de pago)

[1016/j.jconrel.2013.05.015](#)

AUTORES / AUTHORS: - Bonnet ME; Gossart JB; Benoit E; Messmer M; Zounib O; Moreau V; Behr JP; Lenne-Samuel N; Kedinger V; Meulle A; Erbacher P; Bolcato-Bellemin AL

INSTITUCIÓN / INSTITUTION: - Polyplus-transfection SA, Bioparc, BP 90018, Boulevard Sebastien Brant, 67401 Illkirch, France.

RESUMEN / SUMMARY: - RNA interference allows the design of new inhibitors that target deregulated pathways in cancer. However systemic delivery of siRNA for the treatment of solid tumors still remains an issue. In our study, in order to suppress the progression of lung cancer metastasis in mice, we developed sticky siRNA (ssiRNA) to inhibit survivin and cyclin B1, two candidates involved in cell survival and proliferation. We exploited the linear polyethylenimine (PEI) as potent non-viral carrier to efficiently deliver our inhibitors. As a proof of concept, we have chosen a very aggressive mammary adenocarcinoma model (TSA-Luc cells), which forms lung metastases upon systemic cell injection. We confirmed in vitro, that the ssiRNAs delivered with PEI are not only able to inhibit our target genes at the mRNA and protein levels, but are also able to block the cell cycle and cell proliferation through a mechanism of RNA interference. More importantly, we showed in vivo by luciferase dosage, bioimaging and tissue section, an inhibition of lung tumor metastases after systemic delivery of cyclin B1 and survivin ssiRNA complexed with PEI. Alternating treatment with cisplatin and ssiRNA/PEI showed an additive effect between the two anticancer drugs on lung tumor inhibition leading to a significant increase in animal survival. Moreover a promising window between activity (IC50) and toxicity (LD50), essential for therapeutic application, was observed. Our data show that systemic delivery of ssiRNA/PEI

complexes targeting the cell cycle is a valuable strategy for the treatment of lung tumor metastasis and that it can be combined with chemotherapy.

[373]

TÍTULO / TITLE: - microRNA-1 Induces Growth Arrest and Apoptosis in Malignant Mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chest. 2013 Jul 4. doi: 10.1378/chest.12-2770.

●● [Enlace al texto completo \(gratis o de pago\) 1378/chest.12-2770](#)

AUTORES / AUTHORS: - Xu Y; Zheng M; Merritt RE; Shrager JB; Wakelee H; Kratzke RA; Hoang CD

RESUMEN / SUMMARY: - ABSTRACT BACKGROUND: We investigated microRNA expression profiles of malignant pleural mesothelioma (MPM) specimens to identify novel microRNA that are potentially involved in the oncogenic transformation of human pleural cells. METHODS: microRNA microarray transcriptional profiling studies of 25 MPM primary tumors were performed. We used normal pleural from an unmatched patient cohort as normal comparators. To confirm microarray data, we used real-time quantitative PCR. Representative cell lines H513 and H2052 were used in functional analyses of microRNA-1. RESULTS: In addition to several novel MPM-associated microRNAs, we observed that the expression level of microRNA-1 was significantly lower in tumors as compared to normal pleural specimens. Subsequently, pre-mir of microRNA-1 was introduced into MPM cell lines to overexpress this microRNA. Phenotypic changes of these altered cells were assayed. The cellular proliferation rate was significantly inhibited after overexpression of microRNA-1. Early and late apoptosis was increased markedly in microRNA-1-transfected cell lines. Taken together, these data suggested that overexpression of microRNA-1 induced apoptosis in these MPM cell lines, acting as a tumor suppressor. We confirmed our observations by assessing in the transduced MPM cells cell cycle-related genes, pro-apoptotic and anti-apoptotic genes, which all showed coordinated, significant changes characteristic of the apoptotic phenotype. CONCLUSIONS: Thus, further investigation and validation of our microRNA database of MPM may elucidate previously unrecognized molecular pathways and/ or mechanisms by identifying novel microRNAs that are involved in malignant transformation. Our study has now found microRNA-1 to be one of these MPM-associated microRNAs, with potential pathogenic and therapeutic significance.

[374]

TÍTULO / TITLE: - The usefulness of expert opinion in medicolegal referrals of malignant mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pathology. 2013 Aug;45(5):523-5. doi: 10.1097/PAT.0b013e3283639bba.

●● Enlace al texto completo (gratis o de pago)

[1097/PAT.0b013e3283639bba](https://doi.org/10.1097/PAT.0b013e3283639bba)

AUTORES / AUTHORS: - Dixon DL; Griggs KM; Ely M; Henderson DW; Klebe S

INSTITUCIÓN / INSTITUTION: - *Department of Critical Care Medicine, Flinders Medical Centre and Flinders University daggerDepartment of Anatomical Pathology, Flinders University double daggerSA Pathology, Flinders Medical Centre, Adelaide, SA, Australia.

[375]

- CASTELLANO -

TÍTULO / TITLE: Registro del Grupo Cooperativo de Cancer de Pulmon-II de la Sociedad Española de Neumología y Cirugía Torácica. Estudio descriptivo.

TÍTULO / TITLE: - The Spanish Society of Pulmonology and Thoracic Surgery Lung Cancer Cooperative Group-II Registry. A Descriptive Study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Arch Bronconeumol. 2013 Jul 6. pii: S0300-2896(13)00150-6. doi: 10.1016/j.arbres.2013.05.002.

●● Enlace al texto completo (gratis o de pago)

[1016/j.arbres.2013.05.002](https://doi.org/10.1016/j.arbres.2013.05.002)

AUTORES / AUTHORS: - Sanchez de Cos Escuin J; Serra Mitjans M; Hernandez Hernandez J; Hernandez Rodriguez H

INSTITUCIÓN / INSTITUTION: - Sección de Neumología, Hospital San Pedro de Alcántara, Cáceres, España; CIBER de Enfermedades Respiratorias (CIBERES), España. Electronic address: juli1949@separ.es.

RESUMEN / SUMMARY: - INTRODUCTION AND OBJECTIVES: The seventh edition of the TNM classification, together with undeniable advantages, has limitations. The International Association for the Study of Lung Cancer (IASLC) Staging Committee has designed an international prospective study to improve this classification. A group of thoracic surgeons and pulmonologists was established in the Spanish Society of Pulmonology and Thoracic Surgery (SEPAR) Oncology area, and created a registry of new lung cancer (LC) cases to participate in this project. The aim of this paper is to describe the main characteristics of the patients included. MATERIALS AND METHODS: Prospective, observational, multicentre, multiregional data collection (epidemiological, clinical, therapeutic and, especially, anatomical extension) study, according to the IASLC protocol, to analyse its prognostic value. RESULTS: Two thousand, four hundred and nineteen patients (83.6% men) from 28 hospitals were included. Ninety-six percent of the men and 54% of the women were smokers or ex-smokers. Chest/abdominal computed tomography (CT) scanning was performed in over 90% and positron emission tomography

(PET)/CT scanning in 51.5% of cases. Among the 1035 patients who underwent surgery, 77% had early stages (ia to iib), and 61.6% of those treated using other methods had stage iv. Respiratory comorbidity was higher in men (47.9% versus 21.4%). The most common histological subtype was adenocarcinoma (34%), especially in non-smoking women (69.5%). CONCLUSIONS: The proportion of women and adenocarcinomas, as well as those resected at an early stage, increased among LC cases in España.

[376]

TÍTULO / TITLE: - Expression of Bmi1, FoxF1, Nanog, and gamma-Catenin in Relation to Hedgehog Signaling Pathway in Human Non-small-Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung. 2013 Jul 18.

●● Enlace al texto completo (gratis o de pago) [1007/s00408-013-9490-](#)

[4](#)

AUTORES / AUTHORS: - Gialmanidis IP; Bravou V; Petrou I; Kourea H; Mathioudakis A; Lilis I; Papadaki H

INSTITUCIÓN / INSTITUTION: - Department of Anatomy, School of Medicine, University of Patras, 26500, Rio Patras, Greece, gialmanidis_nikea@yahoo.com.

RESUMEN / SUMMARY: - BACKGROUND: Hedgehog signaling is known to be involved in both lung organogenesis and lung carcinogenesis. The aim of this study was to examine potential downstream targets of the hedgehog signaling pathway in non-small-cell lung cancer. METHODS: Protein expression of Bmi1, FoxF1, Nanog, and gamma-catenin was examined by immunohistochemistry in 80 non-small-cell lung cancer samples. Correlations with the previously immunohistochemically recovered results for sonic hedgehog, Ptch1, Smo, Gli1, and Gli2 in the same cohort of tumors as well as the clinicopathological characteristics of the tumors were also evaluated. RESULTS: Bmi1 was expressed in 78/80 (97.5 %) cases of non-small-cell lung cancer and correlated with male gender and expression of Gli1. Positive expression of FoxF1 was found in 62/80 (77.5 %) cases. Expression of FoxF1 correlated with lymph node metastases, Bmi1, and hedgehog pathway activation. Overexpression of Nanog was also noted in 74/80 (92.5 %) tumors and correlated with Bmi1. Cytoplasmic accumulation of gamma-catenin was observed in 85 % (68/80) of the tumors and correlated with the expression of Bmi1, FoxF1, and Nanog. CONCLUSION: Several developmental pathways seem to be implicated in non-small-cell lung cancer. It is also suggested that Bmi1 and FoxF1 may cooperate with hedgehog signaling in non-small-cell lung carcinogenesis.

[377]

TÍTULO / TITLE: - High grade neuroendocrine lung tumors: Pathological characteristics, surgical management and prognostic implications.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jun 13. pii: S0169-5002(13)00220-1. doi: 10.1016/j.lungcan.2013.05.008.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.008](#)

AUTORES / AUTHORS: - Grand B; Cazes A; Mordant P; Foucault C; Dujon A; Guillevin EF; Barthes FL; Riquet M

INSTITUCIÓN / INSTITUTION: - General Thoracic Surgery Department, Georges Pompidou European Hospital, Paris-Descartes University, 20 rue Leblanc, 75015 Paris, France.

RESUMEN / SUMMARY: - Among non-small cell lung cancers (NSCLC), large cell carcinoma (LCC) is credited of significant adverse prognosis. Its neuroendocrine subtype has even a poorer diagnosis, with long-term survival similar to small cell lung cancer (SCLC). Our purpose was to review the surgical characteristics of those tumors. The clinical records of patients who underwent surgery for lung cancer in two French centers from 1980 to 2009 were retrospectively reviewed. We more particularly focused on patients with LCC or with high grade neuroendocrine lung tumors. High grade neuroendocrine tumors were classified as pure large cell neuroendocrine carcinoma (pure LCNEC), NSCLC combined with LCNEC (combined LCNEC), and SCLC combined with LCNEC (combined SCLC). There were 470 LCC and 155 high grade neuroendocrine lung tumors, with no difference concerning gender, mean age, smoking habits. There were significantly more exploratory thoracotomies in LCC, and more frequent postoperative complications in high grade neuroendocrine lung tumors. Pathologic TNM and 5-year survival rates were similar, with 5-year ranging from 34.3% to 37.6% for high grade neuroendocrine lung tumors and LCC, respectively. Induction and adjuvant therapy were not associated with an improved prognosis. The subgroups of LCNEC (pure NE, combined NE) and combined SCLC behaved similarly, except visceral pleura invasion, which proved more frequent in combined NE and less frequent in combined SCLC. Survival analysis showed a trend toward a lower 5-year survival in case of combined SCLC. Therefore, LCC, LCNEC and combined SCLC share the same poor prognosis, but surgical resection is associated with long-term survival in about one third of patients.

[378]

TÍTULO / TITLE: - Curcumin enhances the lung cancer chemopreventive efficacy of phospho-sulindac by improving its pharmacokinetics.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Oncol. 2013 Sep;43(3):895-902. doi: 10.3892/ijo.2013.1995. Epub 2013 Jun 27.

- Enlace al texto completo (gratis o de pago) [3892/ijo.2013.1995](#)

AUTORES / AUTHORS: - Cheng KW; Wong CC; Mattheolabakis G; Xie G; Huang L; Rigas B

INSTITUCIÓN / INSTITUTION: - Division of Cancer Prevention, Department of Medicine, Stony Brook University, Stony Brook, NY 11794-8173, USA.

RESUMEN / SUMMARY: - Phospho-sulindac (PS) is a safe sulindac derivative with promising anticancer efficacy in colon cancer. We evaluated whether its combination with curcumin could enhance the efficacy in the treatment of lung cancer. Curcumin, the principal bioactive component in turmeric, has demonstrated versatile capabilities to modify the therapeutic efficacy of a wide range of anticancer agents. Here, we evaluated the effect of co-administration of curcumin on the anticancer activity of PS in a mouse xenograft model of human lung cancer. Curcumin enhanced the cellular uptake of PS in human lung and colon cancer cell lines. To assess the potential synergism between curcumin and PS in vivo, curcumin was suspended in 10% Tween-80 or formulated in micellar nanoparticles and given to mice by oral gavage prior to the administration of PS. Both formulations of curcumin significantly improved the pharmacokinetic profiles of PS, with the 10% Tween-80 suspension being much more effective than the nanoparticle formulation. However, curcumin did not exhibit any significant modification of the metabolite profile of PS.

Furthermore, in a mouse subcutaneous xenograft model of human lung cancer, PS (200 mg/kg) in combination with curcumin (500 mg/kg) suspended in 10% Tween-80 (51% inhibition, $p < 0.05$) was significantly more efficacious than PS plus micelle curcumin (30%) or PS (25%) or curcumin alone (no effect). Consistent with the improved pharmacokinetics, the combination treatment group had higher levels of PS and its metabolites in the xenografts compared to PS alone. Our results show that curcumin substantially improves the pharmacokinetics of PS leading to synergistic inhibition of the growth of human lung cancer xenografts, representing a promising drug combination.

[379]

TÍTULO / TITLE: - Challenges to Implementation of an Epidermal Growth Factor Receptor Testing Strategy for Non-Small-Cell Lung Cancer in a Publicly Funded Health Care System.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Jul 24.

- Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e31829f6a43](#)

AUTORES / AUTHORS: - Ellis PM; Verma S; Sehdev S; Younus J; Leighl NB

INSTITUCIÓN / INSTITUTION: - *Department of Oncology, McMaster University, Juravinski Cancer Centre, Hamilton, Ontario, Canada; daggerMedical Oncology Department, Odette Cancer Centre, Sunnybrook, Toronto, Ontario, Canada; double daggerWilliam Osler Cancer Centre, Brampton, Ontario, Canada;

section sign Princess Margaret Hospital, London Regional Cancer Program, London, Ontario, Canada; and ||Princess Margaret Hospital, Toronto, Ontario, Canada.

RESUMEN / SUMMARY: - BACKGROUND:: Data from seven recent randomized clinical trials have demonstrated that epidermal growth factor (EGFR) mutation status is predictive of improved progression-free survival and quality of life from first-line EGFR tyrosine kinase inhibitor therapy compared with platinum-based chemotherapy. We examined barriers to the initial implementation of a national EGFR testing policy in Canada. METHODS:: Five laboratories across Canada underwent a validation and quality-control exercise for EGFR mutation testing using reverse transcriptase-polymerase chain reaction with financial support from the pharmaceutical industry for the initial 12 months. Oncologists registered patients with nonquamous histology for EGFR mutation testing using a Web-based platform. Basic demographics were collected including age, histology, sex, smoking status, and ethnicity. The decision to prescribe gefitinib was subsequently registered on the system. RESULTS:: Between March and December 2010, 2104 requests were received for EGFR mutation testing. Demographic details are as follows: adenocarcinoma (91.6%); Asian ethnicity (13.9%); female (58%); light/never smoker (41.3%); stage IV disease (87.1%). The number of tests requested each month ranged from 200 to 250. Mutation testing was conducted in 1771 of 2104 requests (84%). The median turnaround time for EGFR testing was 18 days (standard deviation 9.7). Gefitinib was prescribed in 302 patients (17.1%). The number of test requests dropped to 50 to 100 per month at the end of the initial 12 months. CONCLUSION:: There was rapid uptake of EGFR mutation testing into routine clinical practice in Canada. Uptake of EGFR mutation testing dropped substantially once funding from pharmaceutical industry was discontinued. There is a need for a national strategy to ensure resources are in place to implement molecular testing for new molecularly targeted agents.

[380]

TÍTULO / TITLE: - EGFR mutant-specific immunohistochemistry has high specificity and sensitivity for detecting targeted activating EGFR mutations in lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Pathol. 2013 Jun 11.

●● Enlace al texto completo (gratis o de pago) [1136/jclinpath-2013-201607](#)

AUTORES / AUTHORS: - Cooper WA; Yu B; Yip PY; Ng CC; Lum T; Farzin M; Trent RJ; Mercorella B; Clarkson A; Kohonen-Corish MR; Horvath LG; Kench JG; McCaughan B; Gill AJ; O'Toole SA

INSTITUCIÓN / INSTITUTION: - Department of Tissue Pathology and Diagnostic Oncology, Royal Prince Alfred Hospital, Camperdown, New South Wales, Australia.

RESUMEN / SUMMARY: - AIM: We assessed the diagnostic accuracy of epidermal growth factor receptor (EGFR) mutant-specific antibodies for detecting two common activating EGFR mutations. METHODS: Immunohistochemical expression of mutation-specific antibodies against EGFR exon 19 deletion E746-A750 ((c.2235_2249del15 or c.2236_2250del15, p.Glu746_Ala750del) and exon 21 L858R point mutation (c.2573T>G, p.Leu858Arg) were assessed in a cohort of 204 resected early stage node negative lung adenocarcinomas, and protein expression was compared with DNA analysis results from mass spectrometry analysis. RESULTS: Of seven cases with L858R point mutation, six were positive by immunohistochemistry (IHC). There were three false positive cases using L858R IHC (sensitivity 85.7%, specificity 98.5%, positive predictive value 66.7%, negative predictive value 99.5%). All seven E746-A750 exon 19 deletions identified by mutation analysis were positive by IHC. Four additional cases were positive for exon 19 IHC but negative by mutation analysis. The sensitivity of exon 19 IHC for E746-A750 was 100%, specificity 98.0%, positive predictive value 63.6% and negative predictive value 100%. CONCLUSIONS: Mutant-specific EGFR IHC has good specificity and sensitivity for identifying targeted activating EGFR mutations. Although inferior to molecular genetic analysis of the EGFR gene, IHC is highly specific and sensitive for the targeted EGFR mutations. The antibodies are likely to be of clinical value in cases where limited tumour material is available, or in situations where molecular genetic analysis is not readily available.

[381]

TÍTULO / TITLE: - Assessment of the association between XRCC1 Arg399Gln polymorphism and lung cancer in Chinese.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumour Biol. 2013 Jul 25.

- [Enlace al texto completo \(gratis o de pago\) 1007/s13277-013-0950-](#)

[5](#)

AUTORES / AUTHORS: - Li Y; Huang Y; Cao YS; Zeng J; Tong WN; Xu SL; Zhuo AS

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, the 411th Hospital of PLA, Shanghai, 200081, China.

RESUMEN / SUMMARY: - X-ray repair cross-complementing group 1 (XRCC1) is one of the major DNA repair proteins involved in the base excision repair and plays an important role in the maintenance of genomic integrity. Polymorphisms in XRCC1 may alter the function and repair capacity of XRCC1 protein which further results in the genetic instability and lung carcinogenesis.

Previous studies investigating the relationship between XRCC1 Arg399Gln polymorphism and lung cancer risk in Chinese yielded contradictory results. A meta-analysis was performed to clarify the effect of XRCC1 Arg399Gln polymorphism on lung cancer. The association was assessed by calculating the pooled odds ratio (OR) with 95 % confidence intervals (95 %CI). Nineteen studies with a total of 12,835 participants were included into this meta-analysis. Overall, there was an obvious association between XRCC1 Arg399Gln polymorphism and increased risk of lung cancer under three genetic models (Gln vs. Arg: OR = 1.13, 95 %CI 1.01-1.25, P = 0.029; GlnGln vs. ArArg: OR = 1.41, 95 %CI 1.07-1.84, P = 0.013; GlnGln vs. ArArg/ArgGln: OR = 1.37, 95 %CI 1.07-1.76, P = 0.013). Meta-analysis of 18 studies with high quality also found that there was an obvious association between XRCC1 Arg399Gln polymorphism and increased risk of lung cancer under three genetic models. There was no obvious risk of bias in the meta-analysis. Data from the current meta-analysis support the obvious association between XRCC1 Arg399Gln polymorphism and increased risk of lung cancer in Chinese.

[382]

TÍTULO / TITLE: - Texture analysis of advanced non-small cell lung cancer (NSCLC) on contrast-enhanced computed tomography: prediction of the response to the first-line chemotherapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur Radiol. 2013 Jul 9.

●● Enlace al texto completo (gratis o de pago) [1007/s00330-013-2965-](http://1007/s00330-013-2965-0)

[0](#)

AUTORES / AUTHORS: - Ravanelli M; Farina D; Morassi M; Roca E; Cavalleri G; Tassi G; Maroldi R

INSTITUCIÓN / INSTITUTION: - Department of Radiology, University of Brescia, Brescia, Italy, marcoravanelli@hotmail.it.

RESUMEN / SUMMARY: - **OBJECTIVES:** To assess whether tumour heterogeneity, quantified by texture analysis (TA) on contrast-enhanced computed tomography (CECT), can predict response to chemotherapy in advanced non-small cell lung cancer (NSCLC). **METHODS:** Fifty-three CECT studies of patients with advanced NSCLC who had undergone first-line chemotherapy were retrospectively reviewed. Response to chemotherapy was evaluated according to RECIST1.1. Tumour uniformity was assessed by a TA method based on Laplacian of Gaussian filtering. The resulting parameters were correlated with treatment response and overall survival by multivariate analysis. **RESULTS:** Thirty-one out of 53 patients were non-responders and 22 were responders. Average overall survival was 13 months (4-35), minimum follow-up was 12 months. In the adenocarcinoma group (n = 31), the product of tumour uniformity and grey level (GL*U) was the unique independent variable correlating with treatment response. Dividing the GL*U (range 8.5-46.6) into

tertiles, lesions belonging to the second and the third tertiles had an 8.3-fold higher probability of treatment response compared with those in the first tertile. No association between texture features and response to treatment was observed in the non-adenocarcinoma group (n = 22). GL*U did not correlate with overall survival. CONCLUSIONS: TA on CECT images in advanced lung adenocarcinoma provides an independent predictive indicator of response to first-line chemotherapy. KEY POINTS: * Contrast enhanced computed tomography is currently used to stage lung cancer. * Texture analysis allows tumour heterogeneity to be quantified on CT images. * Texture parameters seem to predict chemotherapy response in advanced NSCLC.

[383]

TÍTULO / TITLE: - Antitumor effect of degalactosylated gc-globulin on orthotopic grafted lung cancer in mice.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Jul;33(7):2911-5.

AUTORES / AUTHORS: - Hirota K; Nakagawa Y; Takeuchi R; Uto Y; Hori H; Onizuka S; Terada H

INSTITUCIÓN / INSTITUTION: - Faculty of Pharmaceutical Sciences, Tokyo University of Science, 2641 Yamazaki, Noda, Chiba 278-8510, Japan.
teradah@rs.tus.ac.jp.

RESUMEN / SUMMARY: - BACKGROUND: Group-specific component (Gc)-globulin-derived macrophage-activating factor (GcMAF) generated by a cascade of catalytic reactions with deglycosidase enzymes exerts antitumor activity. We hypothesized that degalactosyl Gc-globulin (DG3), a precursor of GcMAF, also plays a role in recovery from cancer as well as GcMAF due to progression of deglycosylation by generally resident sialidases and mannosidases. MATERIALS AND METHODS: We prepared the subtypes of DG3, such as 1f1f and 1s1s and its 22 homodimers, by using vitamin D3-binding Sepharose CL-6B and examined their antitumor activity in mice bearing Lewis lung carcinoma cells, by counting the number of nodules formed in their lungs. RESULTS: Antitumor activity of DG3 was observed regardless of its subtype, being equivalent to that of GcMAF. The injection route of DG3 affected its antitumor activity, with subcutaneous and intramuscular administration being more favorable than the intraperitoneal or intravenous route. In order to obtain significant antitumor activity, more than 160 ng/kg of DG3 were required. CONCLUSION: DG3 proved to be promising as an antitumor agent, similarly to GcMAF.

[384]

TÍTULO / TITLE: - Benzylmorpholine Analogs as Selective Inhibitors of Lung Cytochrome P450 2^a13 for the Chemoprevention of Lung Cancer in Tobacco Users.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pharm Res. 2013 Jun 12.

●● Enlace al texto completo (gratis o de pago) [1007/s11095-013-1054-](#)

Z

AUTORES / AUTHORS: - Blake LC; Roy A; Neul D; Schoenen FJ; Aube J; Scott EE

INSTITUCIÓN / INSTITUTION: - Department of Medicinal Chemistry, University of Kansas, 1251 Wescoe Hall Dr., Lawrence, Kansas, 66045, USA.

RESUMEN / SUMMARY: - PURPOSE: 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK), one of the most prevalent and procarcinogenic compounds in tobacco, is bioactivated by respiratory cytochrome P450 (CYP) 2^a13, forming DNA adducts and initiating lung cancer. CYP2A13 inhibition offers a novel strategy for chemoprevention of tobacco-associated lung cancer. METHODS: Twenty-four analogs of a 4-benzylmorpholine scaffold identified by high throughput screening were evaluated for binding and inhibition of both functional human CYP2A enzymes, CYP2A13 and the 94%-identical hepatic CYP2A6, whose inhibition is undesirable. Thus, selectivity is a major challenge in compound design. RESULTS: A key feature resulting in CYP2A13-selective binding and inhibition was substitution at the benzyl ortho position, with three analogs being >25-fold selective for CYP2A13 over CYP2A6. CONCLUSIONS: Two such analogs were negative for genetic and hERG toxicities and metabolically stable in human lung microsomes, but displayed rapid metabolism in human liver and in mouse and rat lung and liver microsomes, likely due to CYP2B-mediated degradation. A specialized knockout mouse mimicking the human lung demonstrates compound persistence in lung and provides an appropriate test model. Compound delivered by inhalation may be effective in the lung but rapidly cleared otherwise, limiting systemic exposure.

[385]

TÍTULO / TITLE: - Combined chemoradiation for head and neck region myxofibrosarcoma of the maxillary sinus.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumori. 2013 Mar-Apr;99(2):e80-3. doi: 10.1700/1283.14214.

●● Enlace al texto completo (gratis o de pago) [1700/1283.14214](#)

AUTORES / AUTHORS: - Cante D; Franco P; Sciacero P; Girelli GF; Casanova Borca V; Pasquino M; Tofani S; Bombaci S; Migliaccio F; Marra A; Numico G; La Porta MR; Ricardi U

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, ASL TO4, Ospedale Civile di Ivrea, Ivrea, Italy. domecante@yahoo.it

RESUMEN / SUMMARY: - AIMS AND BACKGROUND: Adult sarcomas of the head and neck region (HNSs) are considered a rare clinicopathological entity. They account for only 2-15% of all adult sarcomas and for less than 1% of all head and neck malignancies. The preferred initial treatment option is wide surgical excision. Whenever surgery is considered infeasible, a frontline combined-modality approach including radiotherapy and chemotherapy might be proposed. We here report on a case of localized sarcoma of the maxillary sinus treated with induction chemotherapy and subsequent intensity-modulated radiation therapy (IMRT), achieving a persistent complete remission status. METHODS: A 66-year-old man was referred to our institution hospital for left-sided facial pain with swollen left cheek and ipsilateral facial palsy. Magnetic resonance imaging showed a mass within the left maxillary sinus extending to the orbital floor and adjacent alveolar bones. Histological examination of the biopsy specimen demonstrated a myxofibrosarcoma. The patient underwent induction chemotherapy with gemcitabine 900 mg/m² (days 1-8) and taxotere 80 mg/m² every 3 weeks for 3 cycles and sequential simultaneous integrated boost (SIB) IMRT up to a total dose of 70 Gy/35 fractions to the macroscopic disease with 59.5 Gy/35 fractions to the level IB-II lymph nodes in the left neck. RESULTS: Treatment was well tolerated with mild acute toxicity. Complete remission was achieved at restaging MRI 6 months after the end of the combined modality approach. The patient remains in complete, unmaintained clinical and instrumental complete remission 18 months after treatment, with no late side effects. CONCLUSION: Combination therapy with induction chemotherapy and sequential SIB-IMRT could therefore be a promising modality for head and neck sarcomas, allowing for simultaneous tumor control and normal tissue sparing.

[386]

TÍTULO / TITLE: - Evidence of a paradoxical relationship between endotoxin and lung cancer after accounting for left truncation in a study of Chinese female textile workers.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Occup Environ Med. 2013 Jun 12.

●● Enlace al texto completo (gratis o de pago) [1136/oemed-2012-101240](#)

AUTORES / AUTHORS: - Applebaum KM; Ray RM; Astrakianakis G; Gao DL; Thomas DB; Christiani DC; Lavalley MP; Li W; Checkoway H; Eisen EA

INSTITUCIÓN / INSTITUTION: - Department of Epidemiology, School of Public Health, Boston University, , Boston, Massachusetts, USA.

RESUMEN / SUMMARY: - INTRODUCTION: Occupational exposure to endotoxin, found in Gram-negative bacteria in organic material, has been associated predominantly with a reduced risk of lung cancer among workers. An inverse exposure-response gradient among women textile workers in Shanghai, China,

has been reported previously. In this case-cohort study, we investigated the influence of left truncation, which can itself induce a downward trend, on the observed association. METHODS: Subjects were enrolled between 1989 and 1991 and followed until 1998. The data were left-truncated as all subjects were hired before baseline. An analysis was performed with 3038 subcohort members and 602 cases of incident lung cancer. To evaluate left truncation, we compared lung cancer rates in those hired longer ago with those hired more recently among unexposed subjects. Cox proportional hazards modelling was used to estimate incident rate ratios (IRRs) and 95% CIs. RESULTS: Among those who were never exposed to workplace endotoxin, we compared lung cancer rates in those hired >35 years before enrolment with workers hired ≤35 years before enrolment and observed a reduced risk in the former group, IRR=0.74, 95% CI (0.51 to 1.07). After accounting for this downward bias from left truncation, the reduced risk associated with endotoxin remained among those hired ≤50 years before enrolment. In contrast, there was suggestion of an increased risk of lung cancer among those hired >50 years ago. CONCLUSIONS: After examination of left truncation bias, an inverse dose-response between endotoxin and lung cancer remained for all subjects except those hired longest ago.

[387]

TÍTULO / TITLE: - Diffuse Pulmonary Meningotheliomatosis Diagnosed by Transbronchial Lung Biopsy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Respiration. 2013 Jun 21.

●● Enlace al texto completo (gratis o de pago) [1159/000350430](#)

AUTORES / AUTHORS: - Bernabeu Mora R; Sanchez Nieto JM; Hu C; Alcaraz Mateos E; Gimenez Bascunana A; Rodriguez Rodriguez M

INSTITUCIÓN / INSTITUTION: - Division of Pneumology, Hospital Morales Meseguer, University of Murcia, Murcia, España.

RESUMEN / SUMMARY: - Minute pulmonary meningotheelial-like nodules (MPMNs) are usually unique lesions in the lung parenchyma. Diffuse pulmonary meningotheeliomatosis, which is presented as multiple MPMNs, has been less frequently described. MPMNs are mainly asymptomatic and are diagnosed after lung surgery or during autopsy. We report on a patient with multiple and bilateral pulmonary nodules, some of which were cavitated, diagnosed with diffuse pulmonary meningotheeliomatosis by transbronchial lung biopsy. Diffuse pulmonary meningotheeliomatosis should be included in the differential diagnosis of bilateral lung nodules.

[388]

TÍTULO / TITLE: - Management and prognosis of primary tracheal cancer: A national analysis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Laryngoscope. 2013 Jul 19. doi: 10.1002/lary.24123.

●● Enlace al texto completo (gratis o de pago) [1002/lary.24123](#)

AUTORES / AUTHORS: - Nouraei SM; Middleton SE; Reza Nouraei SA; Chir B; Virk JS; George PJ; Hayward M; Sandhu GS

INSTITUCIÓN / INSTITUTION: - National Centre for Airway Reconstruction (S.A.R.N., G.S.S.), Charing Cross Hospital.

RESUMEN / SUMMARY: - OBJECTIVES/HYPOTHESIS: To perform a national review of the incidence and treatment of primary tracheal cancer and to identify gaps in service provision and factors associated with survival. STUDY DESIGN: Retrospective analysis of Hospital Episode Statistics data for England between 1996 and 2011. METHODS: Information about age, sex, morbidity, provider trust, diagnostic delay, nature of hospital admission and treatment, and palliation-free survival were recorded. The relationship between variables and survival was explored with Cox regression. RESULTS: There were 874 patients, giving an incidence of 0.9 per million. Mean age at diagnosis was 66 +/- 13, and there were 456 (52%) males. Mean presentation to diagnosis latency was 2.5 +/- 8 months, and 40% of patients presented as emergency admissions. There were 19 cases of oesophageal involvement and 241 cases of bronchopulmonary involvement; and 188 patients developed distant metastases. There were 60 curative resections (6.9%), which was the most significant predictor of palliation-free survival (hazard ratio: 0.23; 95% confidence interval 0.13-0.38). Other prognostic variables included age, sex, emergency admission, interventional bronchoscopy, chemotherapy, oesophageal involvement, and distant metastases. Ten-year palliation-free survival was 60.8% with curative resection and 19.5% overall. Eighty-six percent of patients were treated in units that treated fewer than one patient per year. CONCLUSION: Tracheal cancer is under-recognized and under-treated. Early diagnosis, access to interventional bronchoscopy, and surgical treatment in specialist units may improve the survival of patients with this condition. LEVEL OF EVIDENCE: 4. Laryngoscope, 2013.

[389]

TÍTULO / TITLE: - Percutaneous cryoablation for stage IV lung cancer: A retrospective analysis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cryobiology. 2013 Jun 24. pii: S0011-2240(13)00183-1. doi: 10.1016/j.cryobiol.2013.06.005.

●● Enlace al texto completo (gratis o de pago)

[1016/j.cryobiol.2013.06.005](#)

AUTORES / AUTHORS: - Niu L; Chen J; Yao F; Zhou L; Zhang C; Wen W; Bi X; Hu Y; Piao X; Jiang F; Zeng J; Liu W; Li J; He L; Mu F; Zuo J; Xu K

INSTITUCIÓN / INSTITUTION: - Fuda Cancer Hospital, Jinan University School of Medicine, Guangzhou, Guangdong, China; Fuda Institute of Cryosurgery for Cancer, Guangzhou, Guangdong, China.

RESUMEN / SUMMARY: - The aim of this study was to investigate the therapeutic effect of cryoablation treatment and palliative treatment in stage IV lung cancer. Fifty-four patients were enrolled into the study. Thirty-one patients received cryoablation treatment (including intra- and extrapulmonary tumors), and 23 patients had palliative treatment (no cryoablation). Both the safety of the procedure and overall survival (OS) for stage IV lung cancer were assessed during a 6.5year follow-up period. The OS of patients in both groups and the effects of treatment timing and frequency were compared. The OS in the cryoablation group was significantly longer than in the palliative group (median OS: 14months vs. 7months, P=0.0009). The OS of those who received delayed cryoablation treatment was longer than that observed for those who received timely treatment (median OS: 18.5months vs. 10months, P=0.0485), but this was not observed in those who received palliative treatment (median OS: 7months vs. 7.5months, P=0.9814). Multiple treatments played an important role in improving the OS of patients who received cryoablation treatment (median OS: 18months vs. 14months, P=0.0376). There was a significant difference between cryoablation and palliative treatment, in terms of OS. In addition, multiple cryoablation treatments may have an advantage over single treatments.

[390]

TÍTULO / TITLE: - A proposal for combination of total number and anatomical location of involved lymph nodes for nodal classification in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chest. 2013 Jun;143(6):1618-25. doi: 10.1378/chest.12-0750.

●● Enlace al texto completo (gratis o de pago) [1378/chest.12-0750](#)

AUTORES / AUTHORS: - Saji H; Tsuboi M; Shimada Y; Kato Y; Yoshida K; Nomura M; Matsubayashi J; Nagao T; Kakihana M; Usuda J; Kajiwara N; Ohira T; Ikeda N

INSTITUCIÓN / INSTITUTION: - Division of Thoracic Surgery, Department of Surgery, Tokyo Medical University, Tokyo, Japan. saji-q@ya2.so-net.ne.jp

RESUMEN / SUMMARY: - BACKGROUND: We previously reported the prognostic impact of the number of involved lymph nodes (LNs) on survival in non-small cell lung cancer (NSCLC). However, it remains unknown whether the total number or anatomic location of involved LNs is a superior prognostic factor. METHODS: A total of 689 patients with NSCLC who underwent complete

resection involving dissection of the hilar and mediastinal LNs with curative intent of ≥ 10 LNs were enrolled. The association between the total number of LNs (nN) involved and survival was assessed by comparison with the anatomic location of LN involvement (pathologic lymph node [pN]), the present nodal category. RESULTS: We classified the patients into five categories according to the combined pN and nN status as follows: pN0-nN0, pN1-nN1-3, pN1-nN4-, pN2-nN1-3, and pN2-nN4. Although there was no statistically significant difference between the pN1-nN4- and pN2-nN1-3 categories, pN2-nN1-3 had better prognoses than pN1-nN4-. On multivariate analysis, the nN category was an independent prognostic factor for overall survival and disease-free survival (vs nN4-; the hazard ratios of nN0 and nN1-3 for overall survival were 0.223 and 0.369, respectively, $P < .0001$ for all), similar to the pN category. We propose a new classification based on a combination of the pN and nN categories: namely, N0 becomes pN0-nN0, the N1 category becomes pN1-nN1-3, the N2a category becomes pN2-nN1-3 + pN1-nN4-, and the N2b category becomes pN2-nN4. Each survival curve was proportional and was well distributed among the curves. CONCLUSIONS: A combined anatomically based pN stage classification and numerically based nN stage classification is a more accurate prognostic determinant in patients with NSCLC, especially in the prognostically heterogeneous pN1 and pN2 cases. Further large-scale international cohort validation analyses are warranted.

[391]

TÍTULO / TITLE: - Attitudes and beliefs toward lung cancer screening among US Veterans.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chest. 2013 Jun 13. doi: 10.1378/chest.13-0056.

●● [Enlace al texto completo \(gratis o de pago\) 1378/chest.13-0056](#)

AUTORES / AUTHORS: - Tanner NT; Egede LE; Shamblin C; Gebregziabher M; Silvestri GA

RESUMEN / SUMMARY: - ABSTRACT BACKGROUND: Lung cancer (LC) is the leading cause of cancer-related death for Veterans cared for by the US Veterans Health Administration (VHA). The LC burden among Veterans is almost double that of the general population. Prior to implementation of a LC screening program, we set out to assess the role of beliefs and attitudes toward LC screening in Veterans. METHODS: Veterans presenting to the Ralph H. Johnson Veterans Affairs Medical Center were invited to complete a self-administered survey. The survey contained questions about demographics, smoking status, health status, and knowledge about LC and willingness to be screened. Responses of ever and never Veteran smokers were compared. RESULTS: 209 Veterans completed the survey. Smokers were significantly ($P < 0.05$) more likely than never smokers to be less educated, have a lower income, and report poorer health. Smokers were more likely than never

smokers to have 2 or more comorbidities, which trended toward significance ($p = 0.062$). Smokers were more likely to have been told by a doctor that they are at high risk for LC and to believe that they are at risk. Nearly all (92.8%) Veterans surveyed would have a CT scan for LC screening and 92.4% would have surgery for a screen detected LC. CONCLUSIONS: Veterans are overwhelmingly willing to undergo screening for LC and it seems that participation will not be a barrier to implementation of a LC screening program. The mortality benefit of LC screening, however, may not be generalizable to the Veteran population due to a higher number of comorbid conditions.

[392]

TÍTULO / TITLE: - Ovarian Pulmonary-type Small Cell Carcinoma: Case Report and Review of the Literature.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Gynecol Pathol. 2013 Sep;32(5):464-70. doi: 10.1097/PGP.0b013e31826d7ea8.

●● Enlace al texto completo (gratis o de pago)

[1097/PGP.0b013e31826d7ea8](#)

AUTORES / AUTHORS: - Kurasaki A; Sakurai N; Yamamoto Y; Taoka H; Takahashi K; Kubushiro K

INSTITUCIÓN / INSTITUTION: - Department of Obstetrics and Gynecology (A.K.), Keiyu Hospital, Yokohama City Department of Obstetrics and Gynecology (N.S.), Fuji Heavy Industries Ltd. Health Insurance Society Ota Memorial Hospital, Ota Department of Obstetrics and Gynecology (Y.Y., H.T., K.K.) Department of Surgical Pathology (K.T.), Toho University School of Medicine, Ohashi Medical Center, Tokyo, Japan.

RESUMEN / SUMMARY: - Ovarian pulmonary-type small cell carcinoma is a rare and extremely aggressive neoplasm. We report the occurrence of an ovarian small cell carcinoma of pulmonary type in a 54-year-old woman. She underwent a total abdominal hysterectomy with a bilateral salpingo-oophorectomy and infracolic omentectomy. A diagnosis of stage IIIA pulmonary-type small cell carcinoma was rendered. The tumor appeared to be composed of a solid growth of small cells arranged in sheets and closely packed nests with insular arrangements separated by a fibrous stroma. The tumor cells had hyperchromatic nuclei with inconspicuous nucleoli and scanty cytoplasm. Rosette and rosette-like structures were scattered. Immunohistochemical staining showed positivity for synaptophysin, neural cell adhesion molecule (NCAM), and focally for chromogranin. Cytokeratin and neuron-specific enolase (NSE) were also positive. Over 80% of the tumor cells showed strong reactivity for MIB-1. Electron microscopy showed neuroendocrine granules. She was effectively treated with paclitaxel plus carboplatin after the surgery.

[393]

TÍTULO / TITLE: - Effect of miR-335 upregulation on the apoptosis and invasion of lung cancer cell A549 and H1299.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumour Biol. 2013 Jun 6.

●● Enlace al texto completo (gratis o de pago) [1007/s13277-013-0878-](#)

[9](#)

AUTORES / AUTHORS: - Wang H; Li M; Zhang R; Wang Y; Zang W; Ma Y; Zhao G; Zhang G

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, The First Affiliated Hospital of Zhengzhou University, No.1 Jianshe Road, Zhengzhou, 450052, China.

RESUMEN / SUMMARY: - MicroRNAs are small non-coding RNAs that may also function as oncogenes and tumor-suppressor genes, as the abnormal expression of microRNAs is associated with various human tumors. However, the effect of miR-335 on the lung cancer cells remains unclear. The aim of the paper was to study the expression of miR335 in non-small cell lung cancer (NSCLC) and miR335's relation to the metastasis, invasion, and apoptosis in lung cancer cells A549 and H1299. qRT-PCR was used to identify the miR-335 expression. The effects of miR-335 on cell proliferation, apoptosis, and invasion were further analyzed. Luciferase reporter assay and Western blot were to verify Bcl-w and SP1 as potential major target genes of miR-335. Finally, the effect of Bcl-w on miR-335-induced cell survival was determined. Our results showed that miR-335 expression was significantly lower in NSCLC tissue, which was significantly associated with lymph node metastasis. In contrast to cells in blank and negative control groups, incidence of apoptosis was significantly higher ($P < 0.05$) and the number of cells migrating through matrigel was significantly lower ($P < 0.05$) in miR-335 mimics transfected group. Western blot and luciferase reporter assay demonstrated that miR-335 could bind to the putative binding sites in Bcl-w (or SP1) mRNA 3'-untranslated region to visibly lower the expression of Bcl-w (or SP1). The introduction of Bcl-w cDNA without 3'-untranslated region abrogated miR-335-induced cell survival. These results indicated that upregulation of miR-335 can simultaneously suppress the invasiveness and promote apoptosis of lung cancer cell A549 and H1299 by targeting Bcl-w and SP1. Therefore, miR-335 may be a potential therapeutic target in NSCLC treatment.

[394]

TÍTULO / TITLE: - Platinum-based Doublet Chemotherapy plus Bevacizumab Without Bevacizumab Maintenance in Advanced Non-small Cell Lung Cancer (NSCLC).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Aug;33(8):3275-8.

AUTORES / AUTHORS: - Noroxe DS; Wallerek S; Sorensen JB

INSTITUCIÓN / INSTITUTION: - Tybjergvej 63, 2720 Vanlose, Denmark.

dnoroxe@dadlnet.dk.

RESUMEN / SUMMARY: - BACKGROUND: We report on a retrospective, consecutive non-randomized group of patients who received bevacizumab plus chemotherapy without bevacizumab maintenance. PATIENTS AND METHODS: Patients with adenocarcinoma subtype of NSCLC and advanced disease received carboplatin and vinorelbine together with bevacizumab for four cycles without bevacizumab maintenance. Overall survival (OS), progression-free survival (PFS), response rate (RR) and toxicity were reviewed. RESULTS: A total of 30 consecutive patients were included in a period of two years. RR, bleeding, thromboembolic and haematological complications were comparable to those of the literature. Median OS and PFS were 8.8 and 4.5 months for patients with performance status (PS) 0-1, while they were 2.6 and 1.2 months for those with PS 2, p-values being 0.006 and 0.039, respectively. CONCLUSION: The effect of maintenance bevacizumab on OS has not yet been established but it has been proven as being favourable on PFS. Our data suggest that patients with PS 2 should not receive this treatment.

[395]

TÍTULO / TITLE: - Differences in the prognosis of resected lung adenocarcinoma according to the histological subtype: a retrospective analysis of Japanese lung cancer registry data.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cardiothorac Surg. 2013 May 31.

●● Enlace al texto completo (gratis o de pago) [1093/ejcts/ezt284](http://dx.doi.org/10.1093/ejcts/ezt284)

AUTORES / AUTHORS: - Sakurai H; Asamura H; Miyaoka E; Yoshino I; Fujii Y; Nakanishi Y; Eguchi K; Mori M; Sawabata N; Okumura M; Yokoi K

INSTITUCIÓN / INSTITUTION: - Division of Thoracic Surgery, National Cancer Center Hospital, Tokyo, Japan.

RESUMEN / SUMMARY: - OBJECTIVES: This study intended to assess the clinicopathological features of the histological subtypes of adenocarcinoma of the lung in a large registry population. METHODS: The Japanese Joint Committee of Lung Cancer Registry performed a nationwide retrospective registry study on the prognosis and clinicopathological profiles of 11 663 patients who underwent resection for primary lung neoplasm in 2004. The registry data of 7921 (62.5%) patients with adenocarcinoma were analysed regarding the prognosis and clinicopathological features according to the histological subtype of adenocarcinoma. The histological subtypes were defined according to the 1999 World Health Organization classification (third edition), where bronchioloalveolar carcinoma (BAC) is defined as adenocarcinoma with a pure bronchioloalveolar growth pattern without invasion. RESULTS: The distribution of the histological subtype was acinar in 471 patients (7.5%),

papillary in 2004 (32.2%), BAC in 1385 (22.3%), solid adenocarcinoma with mucin in 103 (1.7%) and adenocarcinoma with mixed subtypes (AMS) in 2257 (36.3%). The 5-year overall survival rates according to histological subtype were 63.4% for acinar, 72.9% for papillary, 90.3% for BAC, 54.4% for solid adenocarcinoma with mucin and 73.7% for AMS. While the survival rate in patients with BAC was significantly better than those for the other histological subtypes, acinar and solid adenocarcinoma with mucin had significantly worse prognoses than the other histological subtypes. The histological subtype was an independent predictor of survival in a multivariate analysis ($P < 0.001$).

Regarding BAC, the pathological stage included not only Stage IA/IB ($n = 1275$; 92.1%), but also Stage II-IV ($n = 110$; 7.9%). One hundred twenty-five patients (9.0%) with BAC had recurrence, including both local and distant recurrence.

CONCLUSIONS: The histological subtype in adenocarcinoma significantly correlated with the prognosis. In BACs with recurrence or pathological stage II-IV, these tumours might have been classified as invasive adenocarcinoma rather than as BAC. The need for the rigorous pathological evaluation of adenocarcinomas that are considered to be a preinvasive or minimally invasive tumour should be addressed in the new lung adenocarcinoma classification to be proposed by the International Association for the Study of Lung Cancer, the American Thoracic Society and the European Respiratory Society.

[396]

TÍTULO / TITLE: - Pulmonary metastases of the A549-derived lung adenocarcinoma tumors growing in nude mice. A multiple case study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Acta Biochim Pol. 2013 Jul 5.

AUTORES / AUTHORS: - Jakubowska M; Sniegocka M; Podgorska E; Michalczyk-Wetula D; Urbanska K; Susz A; Fiedor L; Pyka J; Plonka PM

INSTITUCIÓN / INSTITUTION: - Faculty of Biochemistry, Biophysics and Biotechnology, Jagiellonian University, Krakow, Poland.

RESUMEN / SUMMARY: - Lung adenocarcinoma is a leading human malignancy with fatal prognosis. Ninety percent of the deaths, however, are caused by metastases. The model of subcutaneous tumor xenograft in nude mice was adopted to study the growth of control and photodynamically treated tumors derived from the human A549 lung adenocarcinoma cell line. As a side-result of the primary studies, observations on the metastasis of these tumors to the murine lungs were collected, and reported in the present paper. The metastasizing primary tumors were drained by a prominent number of lymphatic vessels. The metastatic tissue revealed the morphology of well-differentiated or trans-differentiated adenocarcinoma. Further histological and histochemical analyses demonstrated the presence of golden-brown granules in the metastatic tissue, similar to these found in the tumor tissue. In contrast to the primary tumors, the electron paramagnetic resonance spectroscopy revealed

no nitric oxide - hemoglobin complexes which are a source of intense paramagnetic signals, in the metastases. No metastases were found in other murine organs; however, white infarctions were identified in a single liver. Taken together, the A549-derived tumors growing subcutaneously in nude mice can metastasize and grow on site in the pulmonary tissue. Thus, they can represent an alternative for the model of induced metastatic nodule formation, following intravenous administration of the cancerous cells.

[397]

TÍTULO / TITLE: - Anti-cancer effects of dioscin on three kinds of human lung cancer cell lines through inducing DNA damage and activating mitochondrial signal pathway.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Food Chem Toxicol. 2013 Jun 11;59C:118-128. doi: 10.1016/j.fct.2013.05.054.

●● Enlace al texto completo (gratis o de pago) [1016/j.fct.2013.05.054](#)

AUTORES / AUTHORS: - Wei Y; Xu Y; Han X; Qi Y; Xu L; Xu Y; Yin L; Sun H; Liu K; Peng J

INSTITUCIÓN / INSTITUTION: - College of Pharmacy, Dalian Medical University, 9 Western Lvshun South Road, Dalian 116044, China.

RESUMEN / SUMMARY: - Dioscin, a natural steroid saponin, has been widely investigated. However, its anti-cancer activities on human lung cancer cells are still unknown. In the present paper, the inhibitory effects of dioscin were investigated, and the results showed that dioscin inhibited the proliferation of human A549, NCI-H446 and NCI-H460 cancer cells. DNA damage and cell apoptosis in dioscin-treated cells were found through single cell gel electrophoresis and in situ terminal deoxynucleotidyl transferase dUTP nick-end labeling assays. Furthermore, dioscin caused mitochondrial structure changes and blocked cell cycle at S phase based on transmission electron microscope and flow cytometry analysis. In addition, dioscin treatment caused the release of cytochrome c from mitochondria into cytosol. The activities of Caspase-3 and -9 in dioscin-treated groups were significantly increased compared with control group. Western blotting analysis showed that dioscin significantly down-regulated the expressions of Bcl-2 and Bcl-xl, and up-regulated the expressions of Bax, Bak and Bid. Our results indicate that dioscin has anticancer activities against human lung cancer cells through inducing cell cycle arrest, DNA damage and activating mitochondrial signal pathway.

[398]

TÍTULO / TITLE: - CD74-ROS1 fusion transcripts in resected non-small cell lung carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Rep. 2013 Jul 19. doi: 10.3892/or.2013.2630.

●● Enlace al texto completo (gratis o de pago) [3892/or.2013.2630](https://doi.org/10.3892/or.2013.2630)

AUTORES / AUTHORS: - Matsuura S; Shinmura K; Kamo T; Igarashi H; Maruyama K; Tajima M; Ogawa H; Tanahashi M; Niwa H; Funai K; Kohno T; Suda T; Sugimura H

INSTITUCIÓN / INSTITUTION: - Department of Tumor Pathology, Hamamatsu University School of Medicine, Hamamatsu, Shizuoka 431-3192, Japan.

RESUMEN / SUMMARY: - The recent discovery of fusion oncokines in a subset of non-small cell lung carcinomas (NSCLCs) is of considerable clinical interest, since NSCLCs that express such fusion oncokines are reportedly sensitive to kinase inhibitors. To better understand the role of recently identified ROS1 and RET fusion oncokines in pulmonary carcinogenesis, we examined 114 NSCLCs for SLC34A2-ROS1, EZR-ROS1, CD74-ROS1 and KIF5B-RET fusion transcripts using RT-polymerase chain reaction and subsequent sequencing analyses. Although the expression of SLC34A2-ROS1, EZR-ROS1, or KIF5B-RET fusion transcripts was not detected in any of the cases, the expression of CD74-ROS1 fusion transcripts was detected in one (0.9%) of the 114 NSCLCs. The fusion occurred between exon 6 of CD74 and exon 34 of ROS1 and was an in-frame alteration. The mutation was detected in a woman without a history of smoking. Histologically, the carcinoma was an adenocarcinoma with a predominant acinar pattern; notably, a mucinous cribriform pattern and a solid signet-ring cell pattern were also observed in part of the adenocarcinoma. ROS1 protein overexpression was immunohistochemically detected in a cancer-specific manner in both the primary cancer and the lymph node metastatic cancer. No somatic mutations were detected in the mutation cluster regions of the KRAS, EGFR, BRAF and PIK3CA genes and the entire coding region of p53 in the carcinoma, and the expression of ALK fusion was negative. The above results suggest that CD74-ROS1 fusion is involved in the carcinogenesis of a subset of NSCLCs and may contribute to the elucidation of the characteristics of ROS1 fusion-positive NSCLC in the future.

[399]

TÍTULO / TITLE: - Small cell glioblastoma or small cell carcinoma: A case report and review of the literature.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Neuropathol. 2013 Jul-Aug;32(4):303-10.

AUTORES / AUTHORS: - Hilbrandt C; Sathyadas S; Dahlrot RH; Kristensen BW

INSTITUCIÓN / INSTITUTION: - Department of Pathology and Department of Oncology, Odense University Hospital, Denmark.

RESUMEN / SUMMARY: - It is often easy to distinguish between primary brain tumors and metastases based on morphology alone. However, in some cases immunohistochemistry (IHC) is necessary to obtain a diagnosis, but, as the present case report illustrates, this is not always straightforward. A 75-year old

man was admitted to the hospital with left-sided loss of motor function. A MRI revealed a 6 cm tumor in the right temporoparietal area. The histology was consistent with both glioblastoma multiforme (GBM) and small cell lung carcinoma (SCLC) but IHC was suggestive of a SCLC metastasis. PET-CT revealed no enhancement in the lung, so the tumor was treated as a GBM. Eight months after the primary diagnosis a new MRI revealed metastases in the spinal cord, but there was still no enhancement in the lungs. We reviewed the literature concerning markers used to differentiate between GBM and SCLC and found that most of these markers showed limited specificity. It is further discussed whether the case illustrates an example of spontaneous regression of primary SCLC or might be an example of a GMB metastasizing to the spinal cord. Although immunohistochemical markers are of great help in many situations, the case illustrates important limitations and the need for better diagnostic markers.

[400]

TÍTULO / TITLE: - FDG PET/CT in the Management of Primary Pleural Tumors and Pleural Metastases.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - AJR Am J Roentgenol. 2013 Aug;201(2):W215-26. doi: 10.2214/AJR.13.10572.

●● Enlace al texto completo (gratis o de pago) [2214/AJR.13.10572](#)

AUTORES / AUTHORS: - Kruse M; Sherry SJ; Paidpally V; Mercier G; Subramaniam RM

INSTITUCIÓN / INSTITUTION: - 1 Russel H. Morgan Department of Radiology and Radiological Sciences, Johns Hopkins University, 601 N Caroline St / JHOC 3235, Baltimore, MD 21287.

RESUMEN / SUMMARY: - OBJECTIVE. FDG PET/CT is emerging as an important modality in the evaluation of pleural tumors. PET/CT has an established role in the diagnosis and staging and shows promise in therapy planning, therapy response assessment, and providing prognostic information in patients with malignant pleural mesothelioma. This modality has distinct advantages in characterizing other primary pleural tumors and pleural metastases. CONCLUSION. FDG PET/CT is a useful imaging modality in the management of patients with primary pleural tumors and pleural metastases.

[401]

TÍTULO / TITLE: - Feasibility study of adjuvant chemotherapy of s-1 and Carboplatin for completely resected non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chemotherapy. 2013;59(1):35-41. doi: 10.1159/000351101. Epub 2013 Jun 29.

- Enlace al texto completo (gratis o de pago) [1159/000351101](https://doi.org/10.1159/000351101)

AUTORES / AUTHORS: - Komazaki Y; Sakashita H; Furuiye M; Fujie T; Tamaoka M; Sumi Y; Miyazaki Y; Kojima K; Jin Y; Inase N

INSTITUCIÓN / INSTITUTION: - Department of Integrated Pulmonology, Tokyo Medical and Dental University, Tokyo, Japan.

RESUMEN / SUMMARY: - Background: The purpose of this study was to evaluate the feasibility and compliance of adjuvant chemotherapy of S-1 plus carboplatin for patients with completely resected non-small cell lung cancer (NSCLC) of pathological stage IB-IIIb. Methods: S-1 was given orally at a dose of 80 mg/m²/day for 2 weeks, followed by a 2-week period of no treatment. Carboplatin was given intravenously on day 8 at an area under the curve of 6. This regimen was repeated for four to six 28-day courses. Results: Seventeen patients were enrolled in this study. Fourteen of them completed at least 4 cycles of chemotherapy. Nine patients had grade 2 and three patients had grade 3 thrombocytopenia, respectively. Severe nonhematologic toxicities were uncommon. Treatment was delayed in a few patients because of prolonged thrombocytopenia. Conclusion: We concluded that the regimen was feasible and tolerable for patients with completely resected NSCLC as adjuvant chemotherapy.

[402]

TÍTULO / TITLE: - Different impact of IL10 haplotype on prognosis in lung squamous cell carcinoma and adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Jun;33(6):2729-35.

AUTORES / AUTHORS: - Wang YC; Sung WW; Wang L; Cheng YW; Chen CY; Wu TC; Shieh SH; Lee H

INSTITUCIÓN / INSTITUTION: - Institute of Medicine, 2School of Medicine and 3Department of Public Health Chung Shan Medical University, Taichung, Taiwan, ROC.

RESUMEN / SUMMARY: - BACKGROUND: Polymorphisms (1082^a>G, - 819C>T, and -592G>A) in the interleukin-10 (IL10) promoter are associated with its transcriptional activity. IL10 induction by cigarette smoking plays a role in smoking-related lung tumor progression. We therefore expected to find a difference in impact of IL10 haplotypes on overall survival (OS) and relapse-free survival (RFS) between squamous cell carcinomas (SCC) and adenocarcinomas (ADC) of lung. MATERIALS AND METHODS: Normal lung tissues adjacent to resected tumors from 439 lung cancer patients were collected to determine IL10 haplotypes (ATA and non-ATA) by direct sequencing and polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP). Kaplan-Meier and multivariate Cox regression models were used to assess the impact of IL10 haplotype on OS and RFS. Results: The non-ATA haplotype was more prevalent in patients with nodal

metastatic tumors (N1 and N2) than in those with non-nodal metastatic tumors (N0). This observation was only made for patients with SCC and not ADC. Patients with SCC with the non-ATA haplotype had poorer OS and RFS when compared to those with the ATA haplotype, whereas IL10 haplotype was not associated with the clinical outcome of patients with ADC. CONCLUSION: The IL10 haplotype may independently predict survival and relapse in patients with surgically resected SCC, but not ADC.

[403]

TÍTULO / TITLE: - The issue of studies evaluating biomarkers which predict outcome after pemetrexed-based chemotherapy in malignant pleural mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):e80-2. doi: 10.1097/JTO.0b013e31829b1cf9.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e31829b1cf9](#)

AUTORES / AUTHORS: - Mairinger F; Vollbrecht C; Mairinger T; Popper H

INSTITUCIÓN / INSTITUTION: - Institute of Pathology and Neuropathology University Hospital Essen University of Duisburg-Essen Essen, Germany Institute of Pathology University Hospital Cologne Cologne, Germany Institute of Pathology Helios Klinikum Emil von Behring Berlin, Germany Institute of Pathology Medical University Graz, Graz, Austria.

[404]

TÍTULO / TITLE: - MUC1 has prognostic significance in malignant peritoneal mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Biol Markers. 2013 Jul 5:0. doi: 10.5301/jbm.5000038.

●● Enlace al texto completo (gratis o de pago) [5301/jbm.5000038](#)

AUTORES / AUTHORS: - Pillai K; Pourgholami MH; Chua TC; Morris DL

INSTITUCIÓN / INSTITUTION: - Department of Surgery, University of New South Wales, St. George Hospital, Kogarah, NSW - Australia.

RESUMEN / SUMMARY: - Background: Overexpression of MUC1 predicts poor survival in most cancers. Routine immunohistochemical detection of MUC1 is performed for differential diagnosis in malignant peritoneal mesothelioma (MPM). However, the prognostic significance of MUC1 in MPM has not been determined. Method: We investigated MUC1 expression and other prognostic factors in relation to survival in 42 patients (20 males and 22 females) for whom archival samples were available, using immunohistochemistry. MUC1 was expressed in 38/42 (90%) patients. Its prognostic significance was statistically

analyzed using the Kaplan-Meier method. Results: High expression of MUC1 (immunohistochemical score of 5-8), was correlated with poor survival in several categories: all subtypes of tumors ($p=0.001$), male gender ($p=0.017$), female gender ($p=0.001$), epitheloid tumors ($p=0.001$), epitheloid tumors in males ($p=0.005$), epitheloid tumors in females ($p=0.003$), and age at diagnosis (AAD) ≤ 60 years ($p=0.001$). Amongst the other clinicopathological variables, univariate analysis also showed that male gender ($p=0.007$), sarcomatoid histology ($p=0.001$), peritoneal cancer index (PCI) ≥ 20 ($p=0.013$) and AAD ≥ 60 ($p=0.001$), correlated with poor survival. Multivariate analysis showed that only AAD ≥ 60 ($p=0.049$) was an independent prognostic factor, and that high MUC1 expression significantly correlated with the following categories: all subtypes of tumors ($p=0.001$), male gender ($p=0.002$), female gender ($p=0.031$), epitheloid tumors ($p=0.031$), and AAD ≤ 60 ($p=0.012$). Conclusion: AAD and high MUC1 expression in the tumor are indicators of poor prognosis. MUC1 evaluation by immunohistochemistry may serve as a useful prognostic tool in MPM, but may need further confirmation in a larger patients' cohort.

[405]

TÍTULO / TITLE: - Curcumin Reduces Trabecular and Cortical Bone in Naive and Lewis Lung Carcinoma-bearing Mice.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Aug;33(8):3153-61.

AUTORES / AUTHORS: - Yan L; Yee JA; Cao J

INSTITUCIÓN / INSTITUTION: - USDA, ARS, Grand Forks Human Nutrition Research Center, 2420 2nd Avenue North, Grand Forks, ND 58202, U.S.A. lin.yan@ars.usda.gov.

RESUMEN / SUMMARY: - The present study investigated the effects of curcumin on bone microstructure in non-tumor-bearing and Lewis lung carcinoma-(LLC)-bearing female C57BL/6 mice. Morphometric analysis showed that dietary supplementation with curcumin (2% or 4%) significantly reduced the bone volume to total volume ratio, connectivity density and trabecular number, and significantly increased the structure model index (an indicator of the plate- and rod-like geometry of trabecular structure) and trabecular separation in vertebral bodies compared to controls in both non-tumor-bearing and LLC-bearing mice. Similar changes in trabecular bone were observed in the femoral bone in curcumin-fed mice. Curcumin significantly reduced the cortical bone area to total area ratio and cortical thickness in femoral mid-shaft, but not in vertebral bodies, in both non-tumor-bearing and LLC-bearing mice. Curcumin feeding reduced plasma concentrations of osteocalcin and increased tartrate-resistant acid phosphate 5b in mice regardless of the presence of LLC, indicating that curcumin disrupts the balance of bone remodeling. Our results demonstrated that curcumin reduced the trabecular bone volume and cortical bone density. The skeleton is a favored site of metastasis for many types of cancers, and

curcumin has been investigated in clinical trials in patients with cancer for its chemopreventive effects. Our results suggest the possibility of a combined effect of cancer-induced osteolysis and curcumin-stimulated bone loss in patients using curcumin. The assessment of bone structural changes should be considered for those who participate in curcumin clinical trials to determine its effects on skeleton health, particularly for those with advanced malignancies.

[406]

TÍTULO / TITLE: - Mesothelin is more useful in pleural effusion than in serum in the diagnosis of pleural mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Jun;33(6):2707-13.

AUTORES / AUTHORS: - Ferro P; Canessa PA; Battolla E; Dessanti P; Franceschini MC; Chiaffi L; Morabito A; Fontana V; Pezzi R; Fedeli F; Pistillo MP; Roncella S

INSTITUCIÓN / INSTITUTION: - Division of Histopathology and Cytopathology, 2Division of Pneumology, 3Division of Clinical Pathology, Azienda Sanitaria Locale n 5, La Spezia, Italy.

RESUMEN / SUMMARY: - BACKGROUND/AIM: Soluble mesothelin-related peptide (SMRP) is regarded as a biomarker of malignant pleural mesothelioma (MPM). Herein, we compared the diagnostic performances of SMRP in matched pleural effusion (PE-SMRP) and serum (S-SMRP). MATERIALS AND METHODS: Diagnosis on pleural biopsies was performed for all patients including 43 with MPM, 23 with non-MPM pleural metastases (MTS) and 36 with benign (BNG) pleural diseases. SMRP was measured by a MesoMark ELISA (Cis-Bio International Gif/Yvette; France). RESULTS: Using the receiver operating characteristic (ROC) analysis, 12.70 and 1.08 nM were detected as cut-off values to optimal discrimination for PE-SMRP and S-SMRP, respectively. PE-SMRP showed a better diagnostic accuracy than S-SMRP in MPM vs. MTS+BNG (area under the ROC curve=81.6 vs. 70.5; sensitivity=69.8% vs. 46.5%; specificity=88.1% vs. 84.7%; diagnostic odds ratio (DOR)=17.1 vs. 4.8). In S-SMRP-negative patients, PE-SMRP maintained an acceptable performance (Sensitivity=47.8%; DOR=8.3; p=0.001), whereas in PE-SMRP-negative patients, S-SMRP performed very poorly (Sensitivity=15.4%; DOR=1.2; p=0.858). CONCLUSION: PE-SMRP detection has a superior diagnostic accuracy than S-SMRP detection in the diagnosis of MPM.

[407]

TÍTULO / TITLE: - Nanosized zinc oxide particles do not promote DHPN-induced lung carcinogenesis but cause reversible epithelial hyperplasia of terminal bronchioles.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Arch Toxicol. 2013 Jul 6.

●● Enlace al texto completo (gratis o de pago) [1007/s00204-013-1086-](#)

[5](#)

AUTORES / AUTHORS: - Xu J; Futakuchi M; Alexander DB; Fukamachi K; Numano T; Suzui M; Shimizu H; Omori T; Kanno J; Hirose A; Tsuda H

INSTITUCIÓN / INSTITUTION: - Laboratory of Nanotoxicology Project, Nagoya City University, 3-1 Tanabedohri Mizuho-ku, Nagoya, 467-8603, Japan.

RESUMEN / SUMMARY: - Zinc oxide (ZnO) is known to induce lung toxicity, including terminal bronchiolar epithelial hyperplasia, which gives rise to concerns that nanosized ZnO (nZnO) might lead to lung carcinogenesis. We studied the tumor promoting activity of nZnO by an initiation-promotion protocol using human c-Ha-ras proto-oncogene transgenic rats (Hras128 rats). The rats were given 0.2 % N-nitrosobis(2-hydroxypropyl)amine (DHPN) in the drinking water for 2 weeks and then treated with 0.5 ml of 250 or 500 µg/ml nZnO suspension by intra-pulmonary spraying once every 2 weeks for a total of 7 times. Treatment with nZnO particles did not promote DHPN-induced lung carcinogenesis. However, nZnO dose-dependently caused epithelial hyperplasia of terminal bronchioles (EHTB) and fibrosis-associated interstitial pneumonitis (FAIP) that were independent of DHPN treatment. Tracing the fate of EHTB lesions in wild-type rats indicated that the hyperplastic lesions almost completely disappeared within 12 weeks after the last nZnO treatment. Since nZnO particles were not found in the lung and ZnCl₂ solution induced similar lung lesions and gene expression profiles, the observed lesions were most likely caused by dissolved Zn²⁺. In summary, nZnO did not promote carcinogenesis in the lung and induced EHTB and FAIP lesions that regressed rapidly, probably due to clearance of surplus Zn²⁺ from the lung.

[408]

TÍTULO / TITLE: - Mitigating role of baicalein on lysosomal enzymes and xenobiotic metabolizing enzyme status during lung carcinogenesis of Swiss albino mice induced by benzo(a)pyrene.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Fundam Clin Pharmacol. 2013 May 4. doi: 10.1111/fcp.12036.

●● Enlace al texto completo (gratis o de pago) [1111/fcp.12036](#)

AUTORES / AUTHORS: - Naveenkumar C; Raghunandakumar S; Asokkumar S; Binuclara J; Rajan B; Premkumar T; Devaki T

INSTITUCIÓN / INSTITUTION: - Department of Biochemistry, University of Madras, Guindy Campus, Chennai, 600025, India.

RESUMEN / SUMMARY: - The lungs mainly serve as a primary site for xenobiotic metabolism and constitute an important defense mechanism against inhalation of carcinogens. Our current study aimed to evaluate the chemotherapeutic

efficacy of baicalein (BE) in Swiss albino mice exposed to tobacco-specific carcinogen benzo(a)pyrene [B(a)P] for its ability to mitigate pulmonary carcinogenesis. Here, we report that altered activities/levels of lysosomal enzymes (cathepsin-D, cathepsin-B, acid phosphatase, beta-D-galactosidase, beta-D-glucuronidase, and beta-D-N-acetyl glucosaminidase), phase I biotransformation enzymes (cytochrome P450, cytochrome b5, NADPH-cytochrome P450 reductase, and NADH-cytochrome b5 reductase), and phase II enzymes (glutathione S-transferase, UDP-glucuronyl transferase, and DT-diaphorase) were observed in the B(a)P-induced mice. Treatment with BE significantly restored back the activities/levels of lysosomal enzymes, phase I and phase II biotransformation enzymes. Moreover, assessment of lysosomal abnormalities by transmission electron microscopic examination revealed that BE treatment effectively counteract B(a)P-induced oxidative damages. Protein expression levels studied by immunohistochemistry, immunofluorescence, and immunoblot analysis of CYP1A1 revealed that BE treatment effectively negate B(a)P-induced upregulated expression of CYP1A1. Further analysis of scanning electron microscopic studies in lung was carried out to substantiate the anticarcinogenic effect of BE. The overall data suggest that BE treatment significantly inhibits lysosomal and microsomal dysfunction, thus revealing its potent anticarcinogenic effect.

[409]

TÍTULO / TITLE: - Diagnostic imaging in the preoperative management of lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Surg Today. 2013 Jul 10.

●● [Enlace al texto completo \(gratis o de pago\) 1007/s00595-013-0660-](#)

[Z](#)

AUTORES / AUTHORS: - Imai K; Minamiya Y; Saito H; Motoyama S; Sato Y; Ito A; Yoshino K; Kudo S; Takashima S; Kawaharada Y; Kurihara N; Orino K; Ogawa JI

INSTITUCIÓN / INSTITUTION: - Department of Chest (& Endocrinological) Surgery, Akita University Graduate School of Medicine, 1-1-1 Hondo, Akita, 010-8543, Japan, i-karo@mui.biglobe.ne.jp.

RESUMEN / SUMMARY: - Surgical resection is the accepted standard of care for patients with non-small cell lung cancer (NSCLC). Several imaging modalities play central roles in the detection and staging of the disease. The aim of this review is to evaluate the utility of computed tomography (CT), magnetic resonance imaging (MRI), positron emission tomography (PET) and PET/CT for NSCLC staging. Radiographic staging refers to the use of CT as a non-invasive diagnostic technique. However, while the vast majority of patients undergo only CT, CT is a notoriously inaccurate means of tumor and nodal staging in many situations. PET/CT clearly improves the staging, particularly nodal staging,

compared to CT or PET alone. In addition, as a result of the increased soft-tissue contrast, MRI is superior to CT for distinguishing between tissue characteristics. Endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA), which is a minimally invasive technique, also has pathological diagnostic potential. Extensive research and the resultant improvements in the understanding of genetics, histology, molecular biology and oncology are transforming our understanding of lung cancer, and it is clear that imaging modalities such as CT, MRI, PET and PET/CT will have an important role in its preoperative management. However, thoracic surgeons should also be aware of the limitations of these techniques.

[410]

TÍTULO / TITLE: - 18F-FDG PET/CT Appearances of Adult Pulmonary Blastoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Nucl Med. 2013 Sep;38(9):737-8. doi:

10.1097/RLU.0b013e3182995e2d.

●● Enlace al texto completo (gratis o de pago)

[1097/RLU.0b013e3182995e2d](#)

AUTORES / AUTHORS: - Sonoda LI; Wagner T; Sanghera B; Wong WL

INSTITUCIÓN / INSTITUTION: - From the Paul Strickland Scanner Centre, Mount Vernon Hospital, Northwood, Middlesex, UK.

RESUMEN / SUMMARY: - F-FDG PET/CT scanning plays an important role in the management of thoracic malignancy. The authors would like to present FDG PET/CT images of a rare thoracic malignancy, pulmonary blastoma in adulthood. The patient had recurrent metastatic disease of previously resected primary pulmonary blastoma. The foci of recurrent metastases in lung, mediastinum, and subcutaneous tissue are intensely FDG-avid.

[411]

TÍTULO / TITLE: - Molecular biomarkers for future screening of lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Surg Oncol. 2013 Jul 25. doi: 10.1002/jso.23382.

●● Enlace al texto completo (gratis o de pago) [1002/jso.23382](#)

AUTORES / AUTHORS: - Hensing TA; Salgia R

INSTITUCIÓN / INSTITUTION: - NorthShore University HealthSystem, Clinical Associate Professor of Medicine, University of Chicago Pritzker, Chicago, Illinois.

RESUMEN / SUMMARY: - The Landmark National Lung Screening Trial established the potential for low dose CT screening (LDCT) to reduce lung cancer-specific mortality in high-risk patients as defined by smoking history and age. However, the prevalence of lung cancer in asymptomatic smokers selected based on the NLST criteria is low. Recent advances have facilitated biomarker

discovery for early diagnosis of lung cancer through the analysis of surrogate tissues, including airway epithelium, sputum, exhaled breath, and blood. Although a number of candidate diagnostic biomarkers have been described, none have been validated for use in the clinical setting. The NLST ACRIN biomarker repository is a valuable resource of annotated biological specimens that were collected during the NLST trial, which has the potential to facilitate validation of candidate biomarkers for early diagnosis identified in discovery trials. It will be important to perform retrospective and prospective analysis of biomarkers to screen for lung cancer. The review below summarizes some of our understanding of biomarkers in screening. J. Surg. Oncol. © 2013 The Authors. Journal of Surgical Oncology Published by Wiley Periodicals, Inc.

[412]

TÍTULO / TITLE: - TGF-beta specifically enhances the metastatic attributes of murine lung adenocarcinoma: implications for human non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Exp Metastasis. 2013 Jul 6.

●● Enlace al texto completo (gratis o de pago) [1007/s10585-013-9598-](http://dx.doi.org/10.1007/s10585-013-9598-1)

[1](#)

AUTORES / AUTHORS: - Vazquez PF; Carlini MJ; Daroqui MC; Colombo L; Dalurzo ML; Smith DE; Grasselli J; Pallotta MG; Ehrlich M; Bal de Kier Joffe ED; Puricelli L

INSTITUCIÓN / INSTITUTION: - Research Area, Institute of Oncology "Angel H. Roffo", Av. San Martin 5481, C1417DTB, Buenos Aires, Argentina.

RESUMEN / SUMMARY: - Lung cancer is the most frequent and one of the most deadly cancer types and is classified into small cell lung cancer and non-small cell lung cancer (NSCLC). Transforming growth factor beta (TGFbeta) regulates a wide array of cell functions and plays a major role in lung diseases, including NSCLC. TGFbeta signals through the complex of TGFbeta type I and type II receptors, triggering Smad and non-Smad signaling pathways such as PI3K/Akt and MEK1/ERK. We investigated the role of TGFbeta1 on the progression of the murine lung adenocarcinoma cell line LP07. Furthermore, we undertook a retrospective study with tissue samples from stage I and II NSCLC patients to assess the clinical pathologic role and prognostic significance of TbetaRI expression. We demonstrated that although lung cancer cell monolayers responded to TGFbeta1 anti-mitogenic effects and TGFbeta1 pulse (24 h treatment) delayed tumor growth at primary site; a switch towards malignant progression upon TGFbeta1 treatment was observed at the metastatic site. In our model, TGFbeta1 modulated in vitro clonogenicity, protected against stress-induced apoptosis and increased adhesion, spreading, lung retention and metastatic outgrowth. PI3K and MEK1 signaling pathways were involved in TGFbeta1-mediated metastasis stimulation. Several of these TGFbeta

responses were also observed in human NSCLC cell lines. In addition, we found that a higher expression of TbetaRI in human lung tumors is associated with poor patient's overall survival by univariate analysis, while multivariate analysis did not reach statistical significance. Although additional detailed analysis of the endogenous signaling in vivo and in vitro is needed, these studies may provide novel molecular targets for the treatment of lung cancer.

[413]

TÍTULO / TITLE: - Curcumin inhibits lung cancer progression and metastasis through induction of FOXO1.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tumour Biol. 2013 Jul 26.

●● Enlace al texto completo (gratis o de pago) [1007/s13277-013-1013-](http://1007/s13277-013-1013-7)

[7](#)

AUTORES / AUTHORS: - Li ZC; Zhang LM; Wang HB; Ma JX; Sun JZ

INSTITUCIÓN / INSTITUTION: - Department of Ultrasound, The First Affiliated Hospital, General Hospital of Chinese PLA, Beijing, 100048, China.

RESUMEN / SUMMARY: - Recent population studies provide clues that the use of curcumin may be associated with reduced incidence and improved prognosis of certain cancers. In the present study, we demonstrated that curcumin acted as a growth inhibitor for lung cancer cells. Our results found that curcumin inhibited cell proliferation, which was associated with upregulation of the cyclin-dependent kinase inhibitors, p27 and p21, and downregulation of cyclin D1. In addition, we showed that curcumin induced the expression of forkhead box protein O1 (FOXO1) through activation of extracellular signal-regulated kinase 1/2 signaling. These findings provide evidence for a mechanism that may contribute to the antineoplastic effects of curcumin and justify further work to explore potential roles for activators of FOXO1 in the prevention and treatment of lung cancer.

[414]

TÍTULO / TITLE: - TC-1 (c8orf4) enhances aggressive biologic behavior in lung cancer through the Wnt/beta-catenin pathway.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Surg Res. 2013 Jun 11. pii: S0022-4804(13)00558-1. doi: 10.1016/j.jss.2013.05.075.

●● Enlace al texto completo (gratis o de pago) 1016/j.jss.2013.05.075

AUTORES / AUTHORS: - Su K; Huang L; Li W; Yan X; Li X; Zhang Z; Jin F; Lei J; Ba G; Liu B; Wang X; Wang Y

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Tangdu Hospital, Fourth Military Medical University, Xi'an, China.

RESUMEN / SUMMARY: - BACKGROUND: The thyroid cancer-1 (TC-1) or c8orf4 gene encodes a 106-residue naturally disordered protein that has been found to be associated with thyroid, gastric, and breast cancer. A recent study has indicated that the protein functions as a positive regulator in the Wnt/beta-catenin signaling pathway in human breast cancer. However, no research has been done in the area of lung cancer. Therefore, the goal of the present study was to confirm the relationship among TC-1, lung cancer, and the Wnt/beta-catenin signaling pathway. MATERIALS AND METHODS: The expression of TC-1 was immunohistochemically examined in 147 patients with non-small-cell lung cancer. TC-1-overexpressed and silenced A549 cells were infected using lentivirus and MTT cell proliferation analysis, and Matrigel invasion assays and scratch-wound assays were performed to confirm the biologic behavioral changes in different A549 cell subsets. The Wnt/beta-catenin signaling pathway, key gene beta-catenin, target genes of vascular endothelial growth factor, cyclin D1, matrix metalloproteinase-7, c-myc, and survivin were tested at the mRNA and protein level. RESULTS: TC-1 was detected in 97 of the 147 non-small-cell lung cancer primary tumor specimens, and its expression correlated with the TNM stage and regional lymph node metastasis ($P < 0.01$). In vitro experiments demonstrated that TC-1 expression affected both proliferation and invasion in the A549 cell line. Furthermore, expression of TC-1 protein affected the Wnt/beta-catenin signaling pathway's downstream genes, such as vascular endothelial growth factor and matrix metalloproteinase-7, at the mRNA and protein level. CONCLUSIONS: TC-1 expression is associated with aggressive biologic behavior in lung cancer and might coordinate with the Wnt/beta-catenin pathway as a positive upstream regulator that induces these behaviors.

[415]

TÍTULO / TITLE: - Differentiating a large abdominal cystic lymphangioma from multicystic mesothelioma: report of a case.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Surg Today. 2013 Jun 27.

- Enlace al texto completo (gratis o de pago) [1007/s00595-013-0654-](#)

[X](#)

AUTORES / AUTHORS: - Nagata H; Yonemura Y; Canbay E; Ishibashi H; Narita M; Mike M; Kano N

INSTITUCIÓN / INSTITUTION: - Department of Surgery, Kameda Medical Center, 929 Higashi-cho, Kamogawa, 296-8602, Japan, hiroshin84@gmail.com.

RESUMEN / SUMMARY: - We report a case of retroperitoneal cystic lymphangioma in a 30-year-old woman who presented with abdominal distention and pain. Imaging studies revealed a large, thin-walled multicystic mass occupying the whole abdomen. Based on a preoperative diagnosis of multicystic mesothelioma, we performed laparotomy, which revealed a tumor

arising from the gastropancreatic ligament in the posterior wall of the omental bursa. We resected the tumor completely, without the adjacent viscera. The final pathological diagnosis was cystic lymphangioma, based on the immunohistochemical findings of positive CD31 and CD34 expression, the presence of smooth muscle confirmed by smooth muscle antigen and desmin, and negative calretinin, WT-1 and cytokeratins 5/6 expression. Multicystic mesotheliomas and cystic lymphangiomas are so similar in morphology that immunohistochemical staining should be fully utilized to differentiate them.

[416]

TÍTULO / TITLE: - Comparative evaluation of support vector machines for computer aided diagnosis of lung cancer in CT based on a multi-dimensional data set.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Comput Methods Programs Biomed. 2013 Aug;111(2):519-24. doi: 10.1016/j.cmpb.2013.04.016. Epub 2013 May 31.

●● Enlace al texto completo (gratis o de pago)

1016/j.cmpb.2013.04.016

AUTORES / AUTHORS: - Sun T; Wang J; Li X; Lv P; Liu F; Luo Y; Gao Q; Zhu H; Guo X

INSTITUCIÓN / INSTITUTION: - School of Public Health, Capital Medical University, Beijing 100069, China. Electronic address: hhhtst@126.com.

RESUMEN / SUMMARY: - Lung cancer is one of the most common forms of cancer resulting in over a million deaths per year worldwide. In this paper, the usage of support vector machine (SVM) classification for lung cancer is investigated, presenting a systematic quantitative evaluation against Boosting, Decision trees, k-nearest neighbor, LASSO regressions, neural networks and random forests. A large database of 5984 regions of interest (ROIs) and 488 input features (including textural features, patient characteristics, and morphological features) were used to train the classifiers and evaluate for their performance. The evaluation for classifiers' performance was based on a tenfold cross validation framework, receiver operating characteristic curve (ROC), and Matthews correlation coefficient. Area under curve (AUC) of SVM, Boosting, Decision trees, k-nearest neighbor, LASSO, neural networks, random forests were 0.94, 0.86, 0.73, 0.72, 0.91, 0.92, and 0.85, respectively. It was proved that SVM classification offered significantly increased classification performance compared to the reference methods. This scheme may be used as an auxiliary tool to differentiate between benign and malignant SPNs of CT images in future.

[417]

TÍTULO / TITLE: - Imaging features of extrapulmonary small cell carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Radiol. 2013 Sep;68(9):953-61. doi: 10.1016/j.crad.2013.04.006. Epub 2013 Jun 19.

●● Enlace al texto completo (gratis o de pago) [1016/j.crad.2013.04.006](#)

AUTORES / AUTHORS: - Joyce EA; Kavanagh J; Sheehy N; Beddy P; O'Keeffe SA

INSTITUCIÓN / INSTITUTION: - Department of Radiology, St James's Hospital and Trinity College Dublin, Dublin, Ireland. Electronic address: joyceea@tcd.ie.

RESUMEN / SUMMARY: - Small cell carcinoma accounts for approximately 20% of lung cancers; however, it rarely occurs at other sites. Extrapulmonary small cell carcinoma (EPSCC) is notoriously aggressive with a strong propensity for both regional and distant spread. The majority of the literature on these uncommon tumours is from a clinicopathological viewpoint with a relative paucity of detail regarding the radiological findings. This review will focus on the imaging features of EPSCC in its predominant sites of origin: the gastrointestinal tract, genitourinary tract, head, neck, and breast. We will also discuss the role of positron-emission tomography (PET)/computed tomography (CT) in the staging of EPSCC.

[418]

TÍTULO / TITLE: - Hybrid [F]-FDG PET/MRI including non-Gaussian diffusion-weighted imaging (DWI): Preliminary results in non-small cell lung cancer (NSCLC).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Radiol. 2013 Jul 4. pii: S0720-048X(13)00281-7. doi: 10.1016/j.ejrad.2013.05.027.

●● Enlace al texto completo (gratis o de pago)

[1016/j.ejrad.2013.05.027](#)

AUTORES / AUTHORS: - Heusch P; Kohler J; Wittsack HJ; Heusner TA; Buchbender C; Poeppel TD; Nensa F; Wetter A; Gauler T; Hartung V; Lanzman RS

INSTITUCIÓN / INSTITUTION: - Univ Dusseldorf, Medical Faculty, Department of Diagnostic and Interventional Radiology, D-40225 Dusseldorf, Germany; Univ Duisburg-Essen, Medical Faculty, Department of Diagnostic and Interventional Radiology and Neuroradiology, D-45147 Essen, Germany.

RESUMEN / SUMMARY: - PURPOSE: To assess the feasibility of non-Gaussian DWI as part of a FDG-PET/MRI protocol in patients with histologically proven non-small cell lung cancer. MATERIAL AND METHODS: 15 consecutive patients with histologically proven NSCLC (mean age 61+/-11 years) were included in this study and underwent whole-body FDG-PET/MRI following whole-body FDG-PET/CT. As part of the whole-body FDG-PET/MRI protocol, an EPI-sequence with 5 b-values (0, 100, 500, 1000 and 2000s/mm²) was acquired for DWI of the thorax during free-breathing. Volume of interest (VOI)

measurements were performed to determine the maximum and mean standardized uptake value (SUVmax; SUVmean). A region of interest (ROI) was manually drawn around the tumor on b=0 images and then transferred to the corresponding parameter maps to assess ADCmono, Dapp and Kapp. To assess the goodness of the mathematical fit R2 was calculated for monoexponential and non-Gaussian analysis. Spearman's correlation coefficients were calculated to compare SUV values and diffusion coefficients. A Student's t-test was performed to compare the monoexponential and non-Gaussian diffusion fitting (R2). RESULTS: T staging was equal between FDG-PET/CT and FDG-PET/MRI in 12 of 15 patients. For NSCLC, mean ADCmono was 2.11+/-1.24x10-3mm2/s, Dapp was 2.46+/-1.29x10-3mm2/s and mean Kapp was 0.70+/-0.21. The non-Gaussian diffusion analysis (R2=0.98) provided a significantly better mathematical fitting to the DWI signal decay than the monoexponential analysis (R2=0.96) (p<0.001). SUVmax and SUVmean of NSCLC was 13.5+/-7.6 and 7.9+/-4.3 for FDG-PET/MRI. ADCmono as well as Dapp exhibited a significant inverse correlation with the SUVmax (ADCmono: R=-0.67; p<0.01; Dapp: R=-0.69; p<0.01) as well as with SUVmean assessed by FDG-PET/MRI (ADCmono: R=-0.66; p<0.01; Dapp: R=-0.69; p<0.01). Furthermore, Kapp exhibited a significant correlation with SUVmax (R=0.72; p<0.05) and SUVmean as assessed by FDG-PET/MRI (R=0.71; p<0.005). CONCLUSION: Simultaneous PET and non-Gaussian diffusion acquisitions are feasible. Non-Gaussian diffusion parameters show a good correlation with SUV and might provide additional information beyond monoexponential ADC, especially as non-Gaussian diffusion exhibits better mathematical fitting to the decay of the diffusion signal than monoexponential DWI.

[419]

TÍTULO / TITLE: - Diffusion-weighted imaging and positron emission tomography in various cytological subtypes of primary lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Imaging. 2013 Jul 9. pii: S0899-7071(13)00153-8. doi: 10.1016/j.clinimag.2013.06.001.

●● Enlace al texto completo (gratis o de pago)

[1016/j.clinimag.2013.06.001](#)

AUTORES / AUTHORS: - Tanaka R; Nakazato Y; Horikoshi H; Tsuchida S; Yoshida T; Nakazato Y; Tachibana K; Kondo H; Goya T

INSTITUCIÓN / INSTITUTION: - Department of Surgery, Kyorin University School of Medicine, Tokyo, Japan; Department of Thoracic Surgery, Gunma Prefectural Cancer Center, Gunma, Japan. Electronic address: t-ryota@kpb.biglobe.ne.jp.

RESUMEN / SUMMARY: - The purpose of the study was to retrospectively characterize diffusion-weighted magnetic resonance imaging (DWI) and positron emission tomography for differentiating among the various cytological subtypes of primary lung adenocarcinomas. The maximum diffusion signal

intensities and the maximum standardized uptake value (SUV max) of 31 lesions were analyzed after delineation of regions of interest on the images. Diffusion intensities were 0.934 for Clara type, 0.938 for type II type, 1.473 for nonglobet type, and 1.617 for poorly differentiated adenocarcinoma type based on Shimosato's cytological classification (P=.020). The SUV max values were 4.926, 5.491, 5.709, and 12.132, respectively (P=.044). DWI might reflect some of the cytological characteristics of the tumor cells for differentiating the subtypes of lung adenocarcinomas.

[420]

TÍTULO / TITLE: - miR133a suppresses cell proliferation, migration and invasion in human lung cancer by targeting MMP14.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Rep. 2013 Jun 19. doi: 10.3892/or.2013.2548.

●● Enlace al texto completo (gratis o de pago) [3892/or.2013.2548](#)

AUTORES / AUTHORS: - Xu M; Wang YZ

INSTITUCIÓN / INSTITUTION: - Department of Oncology, The First Affiliated Hospital, Jinan University, Guangzhou, Guangdong 510630, P.R. China.

RESUMEN / SUMMARY: - Lung cancer is the leading cause of cancer-related mortality worldwide. Over half of lung cancer cases are diagnosed after metastasis, for which the median survival time is approximately 8 months. microRNAs (miRNAs), which are a class of single-stranded endogenous noncoding RNAs, are likely to be involved in most biological processes. miR133 plays roles in cardiac development and disease, and recent studies showed that miR133 is downregulated in various human malignancies, such as bladder and lung cancer. However, its detailed role in the processes of cancer remains to be determined. In the present study, we found that in the lung cancer cell lines A549 and NCIH1299 overexpression of miR133a suppressed cell proliferation, migration and invasion. The miR133a-induced suppression of cell migration and invasion can be reversed by miR133a-specific inhibitor. According to the mRNA sequence, matrix metalloproteinase (MMP)14, which is an important regulator of metastasis, is a predicted target of miR133a. This was confirmed by dual luciferase reporter assay. Moreover, miR133a overexpression decreases the mRNA and protein levels of MMP14. Collectively, these results suggest that miR133a may inhibit lung cancer metastasis by targeting MMP14 and may be used as an antimetastatic therapy in lung cancer patients.

[421]

TÍTULO / TITLE: - The role of epigenetics in malignant pleural mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lung Cancer. 2013 Jun 18. pii: S0169-5002(13)00226-2. doi: 10.1016/j.lungcan.2013.05.014.

●● Enlace al texto completo (gratis o de pago)

[1016/j.lungcan.2013.05.014](http://dx.doi.org/10.1016/j.lungcan.2013.05.014)

AUTORES / AUTHORS: - Vandermeers F; Neelature Sriramareddy S; Costa C; Hubaux R; Cosse JP; Willems L

INSTITUCIÓN / INSTITUTION: - Molecular and Cellular Epigenetics (GIGA-Cancer) and Molecular Biology (GxABT), University of Liege (ULg), Liege, Belgium.

RESUMEN / SUMMARY: - Malignant pleural mesothelioma (MPM) is an almost invariably fatal cancer of the pleura due to asbestos exposure. Increasing evidence indicates that unresponsiveness to chemotherapy is due to epigenetic errors leading to inadequate gene expression in tumor cells. The availability of compounds that modulate epigenetic modifications, such as histone acetylation or DNA methylation, offers new prospects for treatment of MPM. Here, we review latest findings on epigenetics in mesothelioma and present novel strategies for promising epigenetic therapies.

[422]

TÍTULO / TITLE: - Air pollution and lung cancer incidence in 17 European cohorts: prospective analyses from the European Study of Cohorts for Air Pollution Effects (ESCAPE).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Lancet Oncol. 2013 Aug;14(9):813-22. doi: 10.1016/S1470-2045(13)70279-1. Epub 2013 Jul 10.

●● Enlace al texto completo (gratis o de pago) [1016/S1470-](http://dx.doi.org/10.1016/S1470-2045(13)70279-1)

[2045\(13\)70279-1](http://dx.doi.org/10.1016/S1470-2045(13)70279-1)

AUTORES / AUTHORS: - Raaschou-Nielsen O; Andersen ZJ; Beelen R; Samoli E; Stafoggia M; Weinmayr G; Hoffmann B; Fischer P; Nieuwenhuijsen MJ; Brunekreef B; Xun WW; Katsouyanni K; Dimakopoulou K; Sommar J; Forsberg B; Modig L; Oudin A; Oftedal B; Schwarze PE; Nafstad P; De Faire U; Pedersen NL; Ostenson CG; Fratiglioni L; Penell J; Korek M; Pershagen G; Eriksen KT; Sorensen M; Tjonneland A; Ellermann T; Eeftens M; Peeters PH; Meliefste K; Wang M; Bueno-de-Mesquita B; Key TJ; de Hoogh K; Concin H; Nagel G; Vilier A; Grioni S; Krogh V; Tsai MY; Ricceri F; Sacerdote C; Galassi C; Migliore E; Ranzi A; Cesaroni G; Badaloni C; Forastiere F; Tamayo I; Amiano P; Dorronsoro M; Trichopoulou A; Bamia C; Vineis P; Hoek G

INSTITUCIÓN / INSTITUTION: - Danish Cancer Society Research Center, Copenhagen, Denmark. Electronic address: ole@cancer.dk.

RESUMEN / SUMMARY: - BACKGROUND: Ambient air pollution is suspected to cause lung cancer. We aimed to assess the association between long-term exposure to ambient air pollution and lung cancer incidence in European populations. METHODS: This prospective analysis of data obtained by the European Study of Cohorts for Air Pollution Effects used data from 17 cohort

studies based in nine European countries. Baseline addresses were geocoded and we assessed air pollution by land-use regression models for particulate matter (PM) with diameter of less than 10 µm (PM10), less than 2.5 µm (PM2.5), and between 2.5 and 10 µm (PMcoarse), soot (PM2.5absorbance), nitrogen oxides, and two traffic indicators. We used Cox regression models with adjustment for potential confounders for cohort-specific analyses and random effects models for meta-analyses. FINDINGS: The 312 944 cohort members contributed 4 013 131 person-years at risk. During follow-up (mean 12.8 years), 2095 incident lung cancer cases were diagnosed. The meta-analyses showed a statistically significant association between risk for lung cancer and PM10 (hazard ratio [HR] 1.22 [95% CI 1.03-1.45] per 10 µg/m³). For PM2.5 the HR was 1.18 (0.96-1.46) per 5 µg/m³. The same increments of PM10 and PM2.5 were associated with HRs for adenocarcinomas of the lung of 1.51 (1.10-2.08) and 1.55 (1.05-2.29), respectively. An increase in road traffic of 4000 vehicle-km per day within 100 m of the residence was associated with an HR for lung cancer of 1.09 (0.99-1.21). The results showed no association between lung cancer and nitrogen oxides concentration (HR 1.01 [0.95-1.07] per 20 µg/m³) or traffic intensity on the nearest street (HR 1.00 [0.97-1.04] per 5000 vehicles per day). INTERPRETATION: Particulate matter air pollution contributes to lung cancer incidence in Europe. FUNDING: European Community's Seventh Framework Programme.

[423]

TÍTULO / TITLE: - Endoscopic and endobronchial ultrasound-guided needle aspiration in the mediastinal staging of non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Jun;33(6):2369-76.

AUTORES / AUTHORS: - Raptakis T; Boura P; Tsimpoukis S; Gkiozos I; Syrigos KN

INSTITUCIÓN / INSTITUTION: - Ierapetra General Hospital, Crete, Greece.

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RESUMEN / SUMMARY: - Invasive staging of mediastinal lymph nodes is recommended for the majority of patients with potentially resectable non-small cell lung cancer. In the past, 'blind' transbronchial needle aspiration during bronchoscopy and mediastinoscopy, a surgical procedure conducted under general anesthesia, were the only diagnostic methods. The latter is still considered the 'gold standard'; however, two novel, minimally-invasive techniques have emerged for the evaluation of the mediastinum: endoscopic (transesophageal) and endobronchial ultrasound—both performed using a dedicated echoendoscope, facilitating the ultrasound-guided, real-time aspiration of mediastinal lymph nodes. These methods are well-tolerated under local anesthesia and moderate sedation, with very low complication rates. Current guidelines on the invasive mediastinal staging of lung cancer still state

that a negative needle aspiration result from these methods should be confirmed by mediastinoscopy. As more experience is gathered and echoendoscopes evolve, a thorough endosonographic evaluation of the mediastinum by both techniques, will obviate the need for surgical staging in the vast majority of patients and reduce the number of futile thoracotomies.

[424]

TÍTULO / TITLE: - A case of bronchogenic cyst mimicking foreign body aspiration.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - *Pediatr Emerg Care*. 2013 Jul;29(7):833-5. doi: 10.1097/PEC.0b013e31829884b2.

●● Enlace al texto completo (gratis o de pago)

[1097/PEC.0b013e31829884b2](#)

AUTORES / AUTHORS: - Ozkan A; Okur M; Kaya M; Kucuk A

INSTITUCIÓN / INSTITUTION: - From the Departments of *Pediatric Surgery and daggerPediatrics, Duzce University Medical School, Duzce, Turkey.

RESUMEN / SUMMARY: - Bronchogenic cysts (BCs) can be life threatening if they compress vital structures in infants and small children. In particular, subcarinal cysts can be life-threatening and compromise the airways. In infants, the initial presentation may be respiratory distress. We report a case of mediastinal cystic mass compressing the main left bronchus. The case was an 18-month-old boy who had been admitted with acute respiratory distress. Chest x-ray showed overdistension of the left lung and a mediastinal shift. Foreign body aspiration was diagnosed. Magnetic resonance imaging was performed, which has shown a mediastinal cystic mass; therefore, the patient underwent thoracotomy. Surgical intervention revealed a subcarinal extrapulmonary BC that compresses the left main bronchus. The diagnosis of BC was confirmed with pathological investigation. In this report, we present a case of BC with the emphasis on the differential diagnosis with foreign body aspiration.

[425]

TÍTULO / TITLE: - Mesothelioma and employment in massachusetts: Analysis of cancer registry data 1988-2003.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - *Am J Ind Med*. 2013 Jun 20. doi: 10.1002/ajim.22218.

●● Enlace al texto completo (gratis o de pago) [1002/ajim.22218](#)

AUTORES / AUTHORS: - Roelofs CR; Kernan GJ; Davis LK; Clapp RW; Hunt PR

INSTITUCIÓN / INSTITUTION: - Department of Work Environment, University of Massachusetts Lowell, Lowell, Massachusetts.

RESUMEN / SUMMARY: - BACKGROUND: Cancer registries can be used to monitor mesothelioma cases and to identify occupations and industries previously and newly associated with mesothelioma-causing asbestos exposure

by using standard registry data on the “usual” occupation and industry of the case. METHODS: We used the National Institute for Occupational Safety and Health’s Standardized Occupational Industry Coding Software to code 564 mesothelioma cases for occupation and 543 for industry of the 1,424 incident mesothelioma in the Massachusetts Cancer Registry from 1988 to 2003. Additionally, we coded the occupation and industry of 80,184 comparison cancer cases (35% of comparison cases in our database). These were used to compute Standardized Morbidity Odds Ratios (SMORs). RESULTS: Seventeen occupations and 11 industries had statistically significant elevated SMORs for mesothelioma. Occupations and industries historically associated with mesothelioma remained elevated in these results. However, we also found statistically significant elevated SMORs for several occupations and industries for which there was previously weak or no association such as chemical engineers, machine operators, and automobile mechanics and machine manufacturing, railroads, and the U.S. Postal Service. CONCLUSIONS: Incident cases of mesothelioma do not appear to be declining in Massachusetts, as legacy exposures to asbestos continue to produce cases in individuals involved in shipbuilding and construction. Exposures in occupations and industries not previously associated with mesothelioma also contribute cases. Cancer registries, with improved data collection, should continue to be monitored for mesothelioma cases and asbestos exposures. Am. J. Ind. Med. © 2013 Wiley Periodicals, Inc.

[426]

TÍTULO / TITLE: - Overexpression of EPH Receptor B2 in Malignant Mesothelioma Correlates with Oncogenic Behavior.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Jul 24.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e31829ceb6a](#)

AUTORES / AUTHORS: - Goparaju C; Donington JS; Hsu T; Harrington R; Hirsch N; Pass HI

INSTITUCIÓN / INSTITUTION: - Department of Thoracic and Cardiovascular Surgery, New York University Langone Medical Center, New York, New York.

RESUMEN / SUMMARY: - INTRODUCTION:: Malignant pleural mesothelioma (MM) is an aggressive asbestos-associated malignancy with limited therapeutic options. This study describes the overexpression of Ephrin B2 receptor (EPHB2) in MM cell lines and tumors, and the effect of its manipulation on proliferative and invasive qualities of the disease. METHODS:: Using expression arrays, we investigated EPHB2 in MM tumors compared with normal mesothelium. EPHB2 and downstream target expression were evaluated using reverse-transcriptase polymerase chain reaction and immunoblotting methods. The biological significance of EPHB2 in MM was evaluated using in vitro

functional assays with and without targeting by EPHB2-short hairpin RNA or blocking peptide in two mesothelioma cell lines, HP-1 and H2595. RESULTS:: EPHB2 is overexpressed in all MM cell lines, but not in benign mesothelial cells, and is significantly elevated in MM tumor tissue compared with matched normal peritoneum. Targeted knockdown of EPHB2 in HP-1 and H2595 cell lines reduced its expression and that of EPHB2 downstream targets such as matrix metalloproteinase (MMP-2) and vascular endothelial growth factor, whereas caspase 2 and caspase 8 had increased expression. Inhibition of EPHB2 resulted in a significant decrease in scratch closure (1.25-fold-1.8-fold), proliferation (1.5-fold), and invasion (1.7-fold-1.8-fold) compared with the controls. Most notably, however, EPHB2 silencing resulted in a significant increase in apoptotic proteins and activity. CONCLUSION:: EPHB2 seems to play an important role in MM pathogenesis and these findings indicate that EPHB2 could serve as a potential novel therapeutic target for treatment of the disease.

[427]

TÍTULO / TITLE: - Proliferation of Small Cell Lung Cancer Cell Line Reduced by Knocking-down PROX1 via shRNA in Lentivirus.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anticancer Res. 2013 Aug;33(8):3169-75.

AUTORES / AUTHORS: - Zhu SH; Shan CJ; Wu ZF; Xu SZ

INSTITUCIÓN / INSTITUTION: - DABT, Assistant Professor, Department of Pulmonary and Critical Care Medicine, College of Medicine, Mayo Clinic, 200 First Street SW, Rochester, MN 55902, U.S.A. xushzh@yahoo.com.

RESUMEN / SUMMARY: - The present study aimed to find whether PROX1 is expressed in small cell lung cancer (SCLC) cell lines, and whether PROX1 knockdown with shRNA via lentivirus resulted in decreased cell proliferation. SCLC cell lines H69, H82, H187 and H889 were selected for the study. PROX1 mRNA and protein levels were determined with real-time reverse-transcription polymerase chain reaction (RT-PCR) and western blot, respectively. The localization and distribution of PROX1 was mapped by immunocytochemistry with a specific antibody. Three pairs of shRNA were selected from a pool of shRNA pairs, and packaged into lentivirus particles to infect the above cell lines. The non-target sequence (NT) and a house-keeping gene, glyceraldehyde 3 phosphate dehydrogenase (GAPDH), were employed as controls. SCLC cell proliferation rates were measured with bromine deoxyuridine (BrdU) incorporation method. The results indicated levels of that PROX1 mRNA were detected in SCLC cell lines in the following rank order H69>H889>H187>H82. A similar profile for PROX1 protein expression was captured. The majority of PROX1 was concentrated at the cell nucleus. H69 was selected to represent the above SCLC cell lines. The PROX1 level in H69 cells was successfully reduced with shRNA lentivirus, and the cell proliferation

rate of infected H69 cells was dramatically reduced by 20-50%. Hence, it is concluded that PROX1 expression in SCLC cell line is high, and can be reduced with shRNA lentivirus, thereby reducing the cell proliferation rate.

[428]

TÍTULO / TITLE: - Notch1 destabilizes the adherens junction complex through upregulation of the Snail family of E-cadherin repressors in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Rep. 2013 Jun 26. doi: 10.3892/or.2013.2565.

●● Enlace al texto completo (gratis o de pago) [3892/or.2013.2565](#)

AUTORES / AUTHORS: - Kim A; Kim EY; Cho EN; Kim HJ; Kim SK; Chang J; Ahn CM; Chang YS

INSTITUCIÓN / INSTITUTION: - Department of Internal Medicine, Yonsei University College of Medicine, Seoul, Republic of Korea.

RESUMEN / SUMMARY: - One of the critical steps driving cancer cell migration and metastasis is the repression of cell adhesion molecules resulting in loss of cell-to-cell adhesion. Although interactions between Notch1 and components of the adherens junction complex have been suggested, little is known concerning the consequence of their interactions. In this study, we investigated the interaction between the Notch1 and the Ecadherin/betacatenin complex, its effect on the expression of adherens junction complex components and its influence on non-small cell lung cancer (NSCLC) cell proliferation. With progression of lung neoplastic lesions in LSL K-ras G12D mice, the expression of Ecadherin was inhibited whereas that of Notch1 was increased with frequent nuclear localization, suggesting an inverse relationship between Ecadherin and Notch1 expression with tumor progression. Transduction of the human Notch1 intracellular domain (N1ICD) into NSCLC cells inhibited expression of Ecadherin and betacatenin and induced changes in the localization of adherens junction molecules. The loss of Ecadherin was mediated through upregulation of the Snail family of transcription factors, Snail and Slug. Experiments in which siRNA against E-cadherin was introduced into NSCLC cells revealed that N1ICD decreased the expression of betacatenin in an Ecadherin-independent manner, leading to inhibition of markers of Wnt/betacatenin signaling activation. Despite inhibition of Wnt/betacatenin signaling in the N1ICD-transduced cells, cells transduced with N1ICD showed no difference in cell cycle progression when compared with that of the control vector-transduced cells. In conclusion, Notch1 inhibited the expression of Ecadherin through upregulation of the Snail family of transcriptional factors, resulting in inhibition of expression of betacatenin and destabilization of adherens junctions.

[429]

TÍTULO / TITLE: - The Use of Indwelling Pleural Catheters for the Management of Malignant Pleural Effusion - Direct Costs in a Dutch Hospital.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Respiration. 2013 Jul 23.

●● Enlace al texto completo (gratis o de pago) [1159/000351796](#)

AUTORES / AUTHORS: - Boshuizen RC; Onderwater S; Burgers SJ; van den Heuvel MM

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Oncology, The Netherlands Cancer Institute, Amsterdam, The Netherlands.

RESUMEN / SUMMARY: - Background: Indwelling pleural catheters (IPCs) are increasingly used in the treatment of malignant pleural effusion (MPE). In general, these catheters have been reported to manage MPE efficiently. Unfortunately, insurance companies in the Netherlands do not reimburse these catheters in either first-line treatment or following failed talc pleurodesis.

Objectives: Investigation of direct costs of IPC placement. Methods:

Retrospective analysis of a prospectively collected database. Direct costs for both catheters and vacuum bottles were calculated. Indicators for indirect costs such as adverse events and complications and the need for additional home care for drainage were registered. Results: Mean costs for IPC amounted to EUR 2,173 and were different between tumor types - mesothelioma: EUR 4,028, breast: EUR 2,204, lung: EUR 1,146 and other: EUR 1,841; $p = 0.017$. Four patients were admitted to hospital for treatment of complications. Mean costs for IPC placement was similar when inserted as frontline treatment and after failed pleurodesis. Approximately 75% of patients did not need any help from specialized home care. Conclusion: Direct costs for IPC placement turn out to be acceptable when compared with estimated hospitalization costs for pleurodesis treatment. Randomized controlled trials have to be performed to compare the cost-effectiveness of IPCs compared to pleurodesis. © 2013 S. Karger AG, Basel.

[430]

TÍTULO / TITLE: - Hypoxia Imaging With 18F-Fluoroerythronitroimidazole Integrated PET/CT and Immunohistochemical Studies in Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Nucl Med. 2013 Aug;38(8):591-6. doi: 10.1097/RLU.0b013e318279fd3d.

●● Enlace al texto completo (gratis o de pago)

[1097/RLU.0b013e318279fd3d](#)

AUTORES / AUTHORS: - Hu M; Xing L; Mu D; Yang W; Yang G; Kong L; Yu J

INSTITUCIÓN / INSTITUTION: - From the *Department of Radiation Oncology, daggerShandong Province Key Laboratory of Radiation Oncology, double daggerPathology section signThoracic Surgery, paragraph signNuclear

Medicine, Shandong Cancer Hospital, Shandong Academy of Medical Sciences, Jinan, People's Republic of China.

RESUMEN / SUMMARY: - PURPOSE: F-fluoroerythronitroimidazole (F-FETNIM) PET/CT allows a noninvasive assessment of tumor hypoxia. The purpose of this study was to evaluate a noninvasive and simplicity parameter for quantization of F-FETNIM uptake with expectations to predict survival in non-small cell lung cancer surgical patients and investigate the relationship between F-FETNIM uptake and molecular markers related to hypoxia, glucose metabolism, and angiogenesis. PATIENTS AND METHODS: Thirty-two patients with biopsy-proven non-small cell lung cancer for surgical treatment were enrolled from March 2007 to February 2011. All patients had PET/CT studies with F-FETNIM and subsequently underwent surgery. Twenty-five patients had stage II disease of surgical staging only for statistical analysis. The tumor-to-mediastinum (T/Me) ratio was calculated and correlated with survival and immunohistochemical staining of hypoxia inducible factor 1alpha (HIF-1alpha), glucose transporter 1 (GLUT-1), and vascular endothelial growth factor (VEGF). RESULTS: The actuarial survival was worse for patients showing a high T/Me ratio, the best discriminative cutoff value being 1.9. A statistically significant worse survival was noted in patients having a tumor with a T/Me ratio of 1.9 or greater, compared with patients showing a tumor with a T/Me ratio of less than 1.9, a 3-year survival of 43.8% and 88.9%, respectively (P = 0.034). There was a positive correlation between T/Me ratio and HIF-1alpha (P = 0.023), GLUT-1 (P = 0.035), and VEGF (P = 0.042). CONCLUSIONS: T/Me ratio provides a noninvasive parameter for quantization of F-FETNIM uptake on PET/CT. T/Me ratio is correlated with a worse outcome and with the expression of HIF-1alpha, GLUT-1, and VEGF, all up-regulated under hypoxic conditions.

[431]

TÍTULO / TITLE: - 1,1-Bis (3'-indolyl)-1-(p-substitutedphenyl)methane compounds inhibit lung cancer cell and tumor growth in a metastasis model.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Pharm Sci. 2013 Jul 23. pii: S0928-0987(13)00261-3. doi: 10.1016/j.ejps.2013.07.007.

●● Enlace al texto completo (gratis o de pago) 1016/j.ejps.2013.07.007

AUTORES / AUTHORS: - Andey T; Patel A; Jackson T; Safe S; Singh M

INSTITUCIÓN / INSTITUTION: - Department of Pharmaceutics, College of Pharmacy and Pharmaceutical Sciences, Florida A&M University, 1520 South Martin Luther King Jr. Blvd., Tallahassee, FL 32307, USA.

RESUMEN / SUMMARY: - 1,1-Bis(3-indolyl)-1-(p-substitutedphenyl)methane (C-DIM) compounds exhibit remarkable antitumor activity with low toxicity in various cancer cells including lung tumors. Two C-DIM analogs, DIM-C-pPhOCH₃ (C-DIM-5) and DIM-C-pPhOH (C-DIM-8) while acting differentially on the orphan nuclear receptor, TR3/Nur77 inhibited cell cycle progression from

G0/G1 to S-phase and induced apoptosis in A549 cells. Combinations of docetaxel (doc) with C-DIM-5 or C-DIM-8 showed synergistic anticancer activity in vitro and these results were consistent with their enhanced antitumor activities in vivo. Respirable aqueous formulations of C-DIM-5 (mass median aerodynamic diameter of 1.92±0.22µm and geometric standard deviation of 2.31±0.12) and C-DIM-8 (mass median aerodynamic diameter of 1.84±0.31µm and geometric standard deviation of 2.11±0.15) were successfully delivered by inhalation to athymic nude mice bearing A549 cells as metastatic tumors. This resulted in significant (p<0.05) lung tumor regression and an overall reduction in tumor burden. Analysis of lung tumors from mice treated with inhalational formulations of C-DIM-5 and C-DIM-8 showed decreased mRNA and protein expression of mediators of tumor initiation, metastasis, and angiogenesis including MMP2, MMP9, c-Myc, beta-catenin, c-Met, c-Myc, and EGFR. Microvessel density assessment of lung tissue sections showed significant reduction (p<0.05) in angiogenesis and metastasis as evidenced by decreased distribution of immunohistochemical staining of VEGF, and CD31. Our studies demonstrate both C-DIM-5 and C-DIM-8 have similar anticancer profiles in treating metastatic lung cancer and possibly work as TR3 inactivators.

[432]

TÍTULO / TITLE: - Comparison of modified Borg scale and visual analog scale dyspnea scores in predicting re-intervention after drainage of malignant pleural effusion.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Support Care Cancer. 2013 Jul 11.

- [Enlace al texto completo \(gratis o de pago\) 1007/s00520-013-1895-](#)

[3](#)

AUTORES / AUTHORS: - Boshuizen RC; Vincent AD; van den Heuvel MM

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Oncology, The Netherlands Cancer Institute (NKI), Plesmanlaan 121, 1066CX, Amsterdam, The Netherlands, r.boshuizen@nki.nl.

RESUMEN / SUMMARY: - BACKGROUND: Dyspnea is the most common symptom in patients with malignant pleural effusion (MPE). Treatment decisions are primarily based on the perception of dyspnea severity. AIMS: To study dyspnea perception following therapeutic thoracentesis using the visual analog scale (VAS) dyspnea score and modified Borg scale (MBS). To investigate whether patient reported outcome (PRO) measures can predict pleural re-interventions. PATIENTS AND METHODS: Consecutive patients presenting with symptomatic MPE and planned for therapeutic thoracentesis were asked to complete MBS and VAS dyspnea scores (both at rest and during exercise) daily for 14 consecutive days. Physicians, unaware of the results of these PRO measures, decided on the necessity of a re-intervention, according to routine

care. PRO measures were analyzed and correlated with performed re-interventions and the volume of removed fluid. RESULTS: Forty-nine out of 64 consecutive patients returned the diaries. Twenty-eight patients (57 %) had a re-intervention within 30 days. Patients who required a re-intervention reported significantly higher MBS than patients who did not. The extent of increase in MBS during exercise was related to the need for re-intervention. Regarding the MBS during exercise, median time to maximal relief was 2 days. Re-intervention was required sooner when larger volumes were drained. CONCLUSION: Patient reported outcomes are useful tools to assess treatment effect of therapeutic thoracentesis. Median time to maximal relief is 2 days. MBS rather than VAS dyspnea score appears to be more prognostic for repeat pleural drainage within 30 days.

[433]

TÍTULO / TITLE: - sFRP1 Inhibits Epithelial-Mesenchymal Transition in A549 Human Lung Adenocarcinoma Cell Line.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Biother Radiopharm. 2013 Jun 26.

●● Enlace al texto completo (gratis o de pago) 1089/cbr.2012.1453

AUTORES / AUTHORS: - Ren J; Wang R; Huang G; Song H; Chen Y; Chen L

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Jinling Hospital, School of Medicine, Nanjing University, Nanjing, China.

RESUMEN / SUMMARY: - Abstract Epithelial-mesenchymal transition (EMT) plays an important role in tumor metastasis of human nonsmall cell lung cancer (NSCLC). The Wnt pathway is identified as a key regulator of normal tissue development, and its aberrant activation contributes to the process of EMT. The secreted frizzled-related protein 1 (sFRP1), a Wnt-signaling antagonist, is downregulated in many tumors, including lung cancer. However, the role of sFRP1 in EMT and tumor metastasis remains unclear. In this study, we found that sFRP1 was dramatically downregulated in transforming growth factor beta1 (TGF-beta1)-induced EMT in the A549 human lung cancer cell line. Restoration of sFRP1 could inhibit the TGF-beta1-induced EMT phenotype and tumor metastasis of the A549 cell line both in vitro and in vivo through inhibition of the Wnt pathway. Furthermore, FH535, a reversible Wnt-signaling inhibitor, exerted a similar effect on the TGF-beta1-induced EMT phenotype. These results indicate that sFRP1, an endogenous antagonist of the Wnt pathway, inhibits TGF-beta1-induced EMT, and might be a potential biomarker for the treatment of NSCLC.

[434]

TÍTULO / TITLE: - Lung Resection for Lung Cancer after Pleural Empyema.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Thorac Cardiovasc Surg. 2013 Jun 10.

●● Enlace al texto completo (gratis o de pago) [1055/s-0033-1343733](https://doi.org/10.5555/s-0033-1343733)

AUTORES / AUTHORS: - Subotic D; Petrov D; Gajic M

INSTITUCIÓN / INSTITUTION: - Clinic for Thoracic Surgery, Clinical Center of Serbia, University of Belgrade, School of Medicine, Visegradska, Belgrade, Serbia.

RESUMEN / SUMMARY: - Background The association of pleural empyema and lung cancer has traditionally been considered as a contraindication for lung resection. However, several aspects of this problem still remain controversial. Materials and Methods A retrospective study was conducted including 15 patients (12 pneumonectomies and 3 lobectomies) who underwent a lung resection for primary lung cancer after previous pleural empyema. Results In all but one patient, empyema was treated by chest tube for 15 to 40 days. In only two patients, the diagnosis of empyema preceded the diagnosis of lung cancer. Among patients with pneumonectomy, a good intrapleural cleavage plane existed in only one patient with no signs of infection. In each patient with a lobectomy, preoperative chest tube aspiration took 20 to 30 days and in none of them intraoperative signs of infection existed. In patients with pneumonectomy, empyema without bronchopleural fistula occurred in two patients, while in one patient, empyema was associated with fistula. The operative morbidity after pneumonectomy was 33.3%. Conclusion Association of pleural empyema and lung cancer is not an absolute contraindication for surgery. Potentially curative operation is possible, provided a full control of infection is achieved.

[435]

TÍTULO / TITLE: - Mesothelioma-mimicking multiple myeloma with dumbbell-type progression.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Intern Med. 2013;52(11):1287-8.

AUTORES / AUTHORS: - Sekiguchi T; Nishida Y; Inaba A; Toyota S

INSTITUCIÓN / INSTITUTION: - Department of Neurology and Neurological Science, Graduate School, Tokyo Medical and Dental University, Japan.

[436]

TÍTULO / TITLE: - Claudin-4 as a Marker for Distinguishing Malignant Mesothelioma From Lung Carcinoma and Serous Adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Surg Pathol. 2013 Jun 17.

●● Enlace al texto completo (gratis o de pago)

[1177/1066896913491320](https://doi.org/10.1177/1066896913491320)

AUTORES / AUTHORS: - Ohta Y; Sasaki Y; Saito M; Kushima M; Takimoto M; Shiokawa A; Ota H

RESUMEN / SUMMARY: - We compared claudin-4 with Ber-EP4 and carcinoembryonic antigen as markers to distinguish mesothelioma from lung adenocarcinoma, poorly differentiated lung squamous cell carcinoma, and serous adenocarcinoma of the uterus or ovary. All mesothelioma specimens were negative for claudin-4, but 3 of 18 specimens were focally positive for Ber-EP4. In contrast, lung adenocarcinoma including poorly differentiated adenocarcinoma was highly positive for claudin-4, but expression of Ber-EP4 and carcinoembryonic antigen varied widely. Claudin-4 in poorly differentiated squamous cell carcinoma had a lower positive expression rate than in adenocarcinoma. Granular claudin-4 immunoreactivity was conspicuous in poorly differentiated squamous cell carcinoma; this immunoreactive pattern was also observed in mesothelioma. Claudin-4 was thus considered very useful marker for distinguishing mesothelioma and adenocarcinoma, even if histological specimens are small, as in biopsies that contain limited numbers of tumor cells. However, it should be mentioned that claudin-4 has a limit in discrimination between squamous cell carcinoma from mesothelioma.

[437]

TÍTULO / TITLE: - Utility of high-definition FDG-PET image reconstruction for lung cancer staging.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Acta Radiol. 2013 May 12.

●● Enlace al texto completo (gratis o de pago)

[1177/0284185113488578](#)

AUTORES / AUTHORS: - Ozawa Y; Hara M; Shibamoto Y; Tamaki T; Nishio M; Omi K

INSTITUCIÓN / INSTITUTION: - Department of Radiology, Nagoya City University Graduate School of Medical Sciences.

RESUMEN / SUMMARY: - **BACKGROUND:** High-definition (HD) positron emission tomography (PET) image reconstruction is a new image reconstruction method based on the point spread function system, which improves the spatial resolution of the images. **PURPOSE:** To compare the utility of HD reconstruction of PET images for staging lung cancer with that of conventional 2D ordered subset expectation maximization Fourier rebinning (2D) reconstruction. **MATERIAL AND METHODS:** Thirty-five lung cancer patients (24 men, 11 women; median age, 66 years) who underwent surgery after 18F-2-deoxy-fluoro-D-glucose (FDG)-PET-CT were studied. Their PET data were reconstructed with 2D and HD PET reconstruction algorithms. Two radiologists individually TNM staged both sets of images. They also evaluated the quality of the images and the diagnostic confidence that the images afforded them using 5-point scales. **RESULTS:** T, N, and M stages were correctly diagnosed on both

the 2D and HD reconstructed images in 23 (66), 25 (71), and 30 (86) of 35 cases, respectively. Overall TNM stage was correctly diagnosed on both types of reconstructed images in 23 cases (66), underestimated in three (9), and overestimated in nine (26). No significant difference in T, N, or M stage or overall TNM stage was observed between the two reconstruction methods. However, the HD reconstructed images afforded a significantly higher level of diagnostic confidence during TNM staging than the 2D reconstructed images and were also of higher quality than the 2D reconstructed images. CONCLUSION: Although HD reconstruction of FDG-PET images did not improve the diagnostic accuracy of lung cancer staging compared with 2D reconstruction, the quality of the HD reconstructed images and the diagnostic confidence level they afforded the radiologists were higher than those of the conventional 2D reconstructed images.

PTPTPTP - JOURNAL ARTICLE ----- [438]

TÍTULO / TITLE: - Talc pleurodesis for the management of malignant pleural effusions in Japan.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Intern Med. 2013;52(11):1173-6.

AUTORES / AUTHORS: - Inoue T; Ishida A; Nakamura M; Nishine H; Mineshita M; Miyazawa T

INSTITUCIÓN / INSTITUTION: - Division of Respiratory and Infectious Diseases, Department of Internal Medicine, St. Marianna University School of Medicine, Japan.

RESUMEN / SUMMARY: - OBJECTIVE: Malignant pleural effusions are commonly treated with tube drainage followed by chemical pleurodesis to maintain the patient's quality of life. While talc is now accepted to be a worldwide gold-standard sclerosing agent for treating malignant pleural effusion, it is not yet approved in Japan. Instead, many patients are administered OK-432 for pleurodesis, which carries the risk of complications such as high-grade fever, chest pain, anaphylactic shock, interstitial pneumonia and acute renal failure. To assess the efficacy and safety of talc as a sclerosing agent in the management of malignant pleural effusions in Japanese patients. METHODS: Pleurodesis was performed using 4 g of sterile talc with thoracoscopic talc poudrage or the administration of talc slurry via a chest tube in patients with malignant pleural effusions. RESULTS: A total of 57 patients were included. The success rate of pleurodesis assessed on chest radiography at 30, 90 and 180 days was 90.6%, 80.9% and 76.1%, respectively. Complications occurring after talc pleurodesis included fever in 10.5% of the patients and chest pain in 14.0% of the patients. No major complications were reported. CONCLUSION: Talc pleurodesis is an effective and safe treatment for the management of malignant pleural effusion in Japanese patients.

[439]

TÍTULO / TITLE: - Nonbacterial Thrombotic Endocarditis Leading to Acute Heart Failure due to Aortic Stenosis in a Patient with Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Intern Med. 2013;52(14):1617-20. Epub 2013 Jul 15.

AUTORES / AUTHORS: - Taniyama D; Yamamoto R; Kawasaki M; Kamata H; Miyamoto K; Mashimo S; Sakamaki F

INSTITUCIÓN / INSTITUTION: - Department of Respiriology, Tokyo Saiseikai Central Hospital, Japan.

RESUMEN / SUMMARY: - We herein report an autopsied case of a patient with adenocarcinoma of the lungs who developed nonbacterial thrombotic endocarditis (NBTE) that caused acute heart failure (AHF) due to acute aortic stenosis (AS). A 37-year-old man was admitted to our hospital due to chest pain and fever. He was diagnosed as having Stage IV lung cancer. Following the administration of chemotherapy, the patient presented with acute onset of dyspnea. He was diagnosed with having AHF based on his clinical course and physical findings, and ultimately he died without responding to treatment. The autopsy revealed that NBTE caused acute AS leading to AHF.

[440]

TÍTULO / TITLE: - New Methods for ALK Status Diagnosis in Non-Small-Cell Lung Cancer: An Improved ALK Immunohistochemical Assay and a New, Brightfield, Dual ALK IHC-In Situ Hybridization Assay.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):1019-31. doi: 10.1097/JTO.0b013e31829ebb4d.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1097/JTO.0b013e31829ebb4d](#)

AUTORES / AUTHORS: - Nitta H; Tsuta K; Yoshida A; Ho SN; Kelly BD; Murata LB; Kosmeder J; White K; Ehser S; Towne P; Schemp C; McElhinny A; Ranger-Moore J; Bieniarz C; Singh S; Tsuda H; Grogan TM

INSTITUCIÓN / INSTITUTION: - *Ventana Medical Systems, Inc., Tucson, AZ; daggerNational Cancer Center Hospital, Tokyo, Japan; double daggerPfizer, Inc., La Jolla, CA; and section sign42 Life Sciences GmbH & Co., Bremerhaven, Germany.

RESUMEN / SUMMARY: - INTRODUCTION: The demonstration of anaplastic lymphoma kinase (ALK) positivity in non-small-cell lung cancer (NSCLC) has been hindered by the technical complexity and interpretative challenges of fluorescence in situ hybridization methods for detection of ALK gene rearrangement and by the inadequate sensitivity of existing immunohistochemistry (IHC) methods for ALK protein detection. In this study, we sought to increase the sensitivity of ALK IHC detection and to develop a

brightfield assay for concurrent detection of ALK protein expression and ALK gene rearrangement. METHODS: We developed a horseradish peroxidase-based IHC detection system using the novel, nonendogenous hapten 3-hydroxy-2-quinoxaline (HQ) and tyramide. We also developed a dual gene protein ALK assay combining a brightfield break-apart in situ hybridization ALK assay with another sensitive IHC method using the novel, nonendogenous hapten 5-nitro-3-pyrazole. We examined the sensitivity and accuracy of these methods using surgically resected NSCLC cases examined with ALK fluorescence in situ hybridization. RESULTS: The new HQ-tyramide IHC detection system offered readily interpretable staining with substantially greater sensitivity than conventional ALK IHC, and produced heterogeneous and homogeneous patterns of ALK protein staining among ALK-positive NSCLC surgical cases. The new 5-nitro-3-pyrazole-based IHC detection system was similar in ALK detection sensitivity to the HQ-tyramide IHC system and was compatible with the brightfield in situ hybridization assay. CONCLUSION: The new HQ-tyramide IHC reagent system allows more sensitive assessment of ALK protein status in NSCLC cases. The new ALK gene-protein assay allows the concurrent visualization of ALK gene and ALK protein status in single cells, allowing more accurate ALK status determination even in heterogeneous specimens.

[441]

TÍTULO / TITLE: - Erratum to: Experience of 11 years use of cidofovir in recurrent respiratory papillomatosis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur Arch Otorhinolaryngol. 2013 May 31.

●● Enlace al texto completo (gratis o de pago) [1007/s00405-013-2569-](#)

[y](#)

AUTORES / AUTHORS: - Graupp M; Gugatschka M; Kiesler K; Reckenzaun E; Hammer G; Friedrich G

INSTITUCIÓN / INSTITUTION: - Department of Phoniatrics, ENT University Clinic, Speech and Swallowing, Medical University Graz, Auenbruggerplatz 26-28, 8036, Graz, Austria, matthias.graupp@gmx.at.

[442]

TÍTULO / TITLE: - Phase 2 trial of erlotinib with or without PF-3512676 (CPG 7909, a Toll-like receptor 9 agonist) in patients with advanced recurrent EGFR-positive non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Biol Ther. 2013 Jul 1;14(7):557-63. doi: 10.4161/cbt.24598. Epub 2013 May 10.

●● Enlace al texto completo (gratis o de pago) [4161/cbt.24598](#)

AUTORES / AUTHORS: - Belani CP; Nemunaitis JJ; Chachoua A; Eisenberg PD; Raez LE; Cuevas JD; Mather CB; Benner RJ; Meech SJ

INSTITUCIÓN / INSTITUTION: - Penn State Hershey Cancer Institute; Milton S. Hershey Medical Center; Hershey, PA USA.

RESUMEN / SUMMARY: - This phase 2 study assessed PF-3512676 plus erlotinib in patients with epidermal growth factor receptor-positive advanced non-small cell lung cancer after prior chemotherapy failure. Patients were randomized 1:1 to PF-3512676 (0.20 mg/kg injected subcutaneously once weekly) plus erlotinib (150 mg daily) or erlotinib alone. The primary objective was to estimate progression-free survival (PFS). Patients received PF-3512676 plus erlotinib (n = 18) or erlotinib alone (n = 21). The study was halted because an unplanned interim analysis indicated that large improvement in PFS with addition of PF-3512676 would be unlikely. In the PF-3512676-plus-erlotinib and erlotinib-alone arms, median PFS was 1.6 and 1.7 mo (hazard ratio, 1.00; 95% confidence interval, 0.5-2.0; P = 0.9335), respectively. Salient grade \geq 3 adverse events in PF-3512676-plus-erlotinib and erlotinib-alone arms were diarrhea (5/0), dyspnea (5/6), fatigue (4/1), other flu-like symptoms (2/0), anemia (2/1), and lymphocytopenia (based on laboratory values, 1/4). Adding PF-3512676 to erlotinib did not show potential for increased progression-free survival over erlotinib alone in patients with advanced recurrent epidermal growth factor receptor-positive non-small cell lung cancer.

[443]

TÍTULO / TITLE: - "One marker does not fit all": additional translational and validation studies are needed to identify faithful predictors of pemetrexed activity in mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):e79-80. doi: 10.1097/JTO.0b013e318293e45b.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1097/JTO.0b013e318293e45b](#)

AUTORES / AUTHORS: - Giovannetti E; Peters GJ; Zucali PA

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, VU University Medical Center, De Boelelaan, Amsterdam, The Netherlands Department of Medical Oncology and Hematology, Humanitas Clinical and Research Center, Rozzano, Milan, Italy.

[444]

TÍTULO / TITLE: - Pemetrexed-induced eyelid edema in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Craniofac Surg. 2013 Jul;24(2):e401-3. doi: 10.1097/SCS.0b013e318285d5c2.

- Enlace al texto completo (gratis o de pago)

[1097/SCS.0b013e318285d5c2](https://doi.org/10.1097/SCS.0b013e318285d5c2)

AUTORES / AUTHORS: - Martins-Filho PR; Kameo SY; Mascarenhas-Oliveira AC; Vieira NF; Azevedo E

INSTITUCIÓN / INSTITUTION: - From the *Department of Health Education, Federal University of Sergipe, Sergipe; and daggerClinical Oncology, Clinica Onco Hematos, Sergipe, Brazil.

RESUMEN / SUMMARY: - Pemetrexed is a novel, multitargeted antifolate approved for the treatment of malignant pleural mesothelioma and non-small cell lung cancer. Although pemetrexed is a safe drug, some adverse effects such as myelosuppression and cutaneous reactions are observed. Pemetrexed-induced eyelid edema is a rare side effect of pemetrexed treatment, and until this moment few cases were reported in the medical literature. We reported a new case of pemetrexed-induced eyelid edema in a patient with adenocarcinoma of the lung with brain metastases.

[445]

TÍTULO / TITLE: - Morphometric study of uninvolved rectal mucosa 10 cm and 20 cm away from the malignant tumor.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Histol Histopathol. 2013 Jul 17.

AUTORES / AUTHORS: - Despotovic SZ; Milicevic NM; Milosevic DP; Despotovic N; Erceg P; Bojic B; Bojic D; Svorcan P; Mihajlovic G; Dordevic J; Lalic IM; Milicevic Z

INSTITUCIÓN / INSTITUTION: - Institute of Histology and Embryology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

RESUMEN / SUMMARY: - Recently, many details of the interplay between tumor cells and tumor-associated stromal elements leading to the progression of malignant disease were elucidated. In contrast, little is known about the role of uninvolved stromal tissue in the remote surrounding of the malignant tumor. Therefore, we performed a computer-aided morphometric study of rectal mucosa in samples taken 10 cm and 20 cm away from the malignant tumor during endoscopic examination of 23 patients older than 60 years. The samples of rectal mucosa from 10 healthy persons of corresponding age subjected to diagnostic rectoscopy during active screening for asymptomatic cancer were used as control. All structural elements of the rectal mucosa were studied and the number of nucleated cells in the lamina propria per 0.1 mm² of tissue was assessed. Our study revealed a reduced number of cells in the lamina propria of the rectal mucosa 10 cm and 20 cm away from the tumor lesion in both male and female patients. The decreased mucosal height and increased crypt number were registered in female patients 10 cm away from the tumor. The connective tissue of lamina propria showed a disorderly organization: the collagen fibers were frail, loosely arranged and signs of tissue edema were

present. Small blood vessels and capillaries were much more frequently seen than in healthy tissue. Our results demonstrate the complex interactions between the cancer and remote mucosal tissue of the affected organ.

[446]

TÍTULO / TITLE: - A comparison between cyberknife and neurosurgery in solitary brain metastases from non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Neurol Neurosurg. 2013 Jul 10. pii: S0303-8467(13)00214-X. doi: 10.1016/j.clineuro.2013.06.006.

●● Enlace al texto completo (gratis o de pago)

1016/j.clineuro.2013.06.006

AUTORES / AUTHORS: - Tian LJ; Zhuang HQ; Yuan ZY

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Tianjin Medical University Cancer Hospital & Institute, Tianjin 300060 PR China.

RESUMEN / SUMMARY: - PURPOSE: To evaluate the efficacy of cyberknife (CK) and neurosurgery (NS) in patients newly diagnosed as solitary brain metastasis (SBM) from non-small cell lung cancer (NSCLC). METHODS AND MATERIALS: We retrospectively analyzed 76 patients between 1990 and 2012 from our institution, including 38 patients performing CK and the other half performing NS. The observation end point was overall survival time (OS), local control of treated metastasis (LC) and intracranial control (IC). Kaplan-Meier OS curves were compared with the log-rank test. Cox regression analysis was used to determine prognosticators for OS, LC and IC. RESULTS: The baseline characteristic between the two groups was not significantly different. The 1-year OS rates were 53.5% and 30.5% in the CK group and NS group, respectively, (p=0.121). The 1-year LC rates were 50.8% and 31.3%, respectively, (p=0.078). The 1-year IC rates were 50.8% and 27.7%, respectively, (p=0.066). In multivariate analysis, improved OS was significantly associated with younger age (p=0.016), better ECOG performance status (p=0.000) and graded prognostic assessment (GPA, 3.5-4.0, p=0.006). The LC was also associated with better ECOG performance status (p=0.000). The IC was associated with both better ECOG performance status (p=0.000) and GPA (3.5-4.0, p=0.005). CONCLUSIONS: There was no statistical difference between CK and NS for SBM from NSCLC in OS, LC and IC. However, CK is less invasive and may be more acceptable for patients. The result needs randomized trials to confirm and further study.

[447]

TÍTULO / TITLE: - EZH2 Promotes E2F-Driven SCLC Tumorigenesis through Modulation of Apoptosis and Cell-Cycle Regulation.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):1102-6. doi: 10.1097/JTO.0b013e318298762f.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e318298762f](https://doi.org/10.1097/JTO.0b013e318298762f)

AUTORES / AUTHORS: - Hubaux R; Thu KL; Coe BP; Macaulay C; Lam S; Lam WL

INSTITUCIÓN / INSTITUTION: - Integrative Oncology, British Columbia Cancer Research Centre, Vancouver, British Columbia, Canada.

RESUMEN / SUMMARY: - INTRODUCTION: Although enhancer of zeste homolog 2 (EZH2) has been associated with both non-small cell and small-cell lung cancers (SCLCs), current observations suggest different mechanisms of EZH2 activation and overexpression in these lung cancer types. Globally, SCLC kills 200,000 people yearly. New clinical approaches for SCLC treatment are required to improve the poor survival rate. Given the therapeutic potential of EZH2 as a target, we sought to delineate the downstream consequences of EZH2 disruption to identify the cellular mechanisms by which EZH2 promotes tumorigenesis in SCLC. METHODS: We generated cells with stable expression of short hairpin RNA targeting EZH2 and corresponding controls (pLKO.1) and determined the consequences of EZH2 knockdown on the cell cycle and apoptosis by means of propidium iodide staining and fluorescence-activated cell sorting, Western blot, quantitative reverse transcriptase-polymerase chain reaction as well as cell viability assessment using methylthiazol tetrazolium assays. RESULTS: We discovered that EZH2 inhibition (1) increased apoptotic activity by up-regulating the proapoptotic factors Puma and Bad, (2) decreased the fraction of cells in S or G2/M phases, and (3) elevated p21 protein levels, implicating EZH2 in cell death and cell-cycle control in SCLC. CONCLUSION: Our findings present evidence for the role of EZH2 in the regulation of cell cycle and apoptosis, providing a biological mechanism to explain the tumorigenicity of EZH2 in SCLC. Our work points to the great potential of EZH2 as a therapeutic target in SCLC.

[448]

TÍTULO / TITLE: - Resistance to EGFR-TKI Can Be Mediated through Multiple Signaling Pathways Converging upon Cap-Dependent Translation in EGFR-Wild Type NSCLC.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Jul 23.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e31829ce963](https://doi.org/10.1097/JTO.0b013e31829ce963)

AUTORES / AUTHORS: - Patel MR; Jay-Dixon J; Sadiq AA; Jacobson BA; Kratzke RA

INSTITUCIÓN / INSTITUTION: - Department of Medicine, Division of Hematology, Oncology, and Transplantation, University of Minnesota Medical School, Minneapolis, Minnesota.

RESUMEN / SUMMARY: - INTRODUCTION:: For the majority of patients with non-small-cell lung cancer (NSCLC), response to epidermal growth factor receptor tyrosine kinase inhibitors (EGFR-TKIs) is suboptimal. In models of acquired resistance to EGFR-TKI, activation of Akt phosphorylation is frequently observed. Because Akt activation results in downstream initiation of cap-dependent protein translation, we hypothesized that a strategy of targeting cap-dependent translation in combination with erlotinib might enhance therapy. METHODS:: NSCLC cells that are wild type for EGFR were assayed for sensitivity to erlotinib. Serum-starved NSCLC cells were assayed for EGFR signaling and downstream pathway activation by immunoblot after stimulation with epidermal growth factor. EGFR signaling and signaling mediators of cap-dependent translation were assayed by immunoblot under serum-replete conditions 24 hours after treatment with erlotinib. Finally, combination treatment with erlotinib and two different cap-dependent translation inhibitors were done to assess the effect on cell viability. RESULTS:: EGFR signaling is coupled to activation of cap-dependent translation in EGFR wild-type cells. Erlotinib inhibits EGFR phosphorylation in EGFR-TKI resistant cells, however, results in activation of downstream signaling molecules including Akt and extracellular regulated kinase, ERK ½, resulting in maintenance of eukaryotic initiation factor 4F (eIF4F) activation. eIF4F cap-complex formation is maintained in erlotinib-resistant cells, but not in erlotinib-sensitive cells. Finally, using an antisense oligonucleotide against eukaryotic translation initiation factor 4E and a small-molecule inhibitor to disrupt eIF4F formation, we show that cap-dependent translation inhibition can enhance sensitivity to erlotinib. CONCLUSION:: The results of these studies support further clinical development of translation inhibitors for treatment of NSCLC in combination with erlotinib.

[449]

TÍTULO / TITLE: - Hormones of adipose tissue and their biologic role in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Treat Rev. 2013 Jul 16. pii: S0305-7372(13)00128-X. doi: 10.1016/j.ctrv.2013.06.005.

●● Enlace al texto completo (gratis o de pago) [1016/j.ctrv.2013.06.005](#)

AUTORES / AUTHORS: - Ntikoudi E; Kiagia M; Boura P; Syrigos KN

INSTITUCIÓN / INSTITUTION: - Oncology Unit, Third Department of Medicine, Athens University School of Medicine, Sotiria General Hospital, Building Z, 152 Mesogion Avenue, 115 27 Athens, Greece. Electronic address: dikoudi@yahoo.com.

RESUMEN / SUMMARY: - INTRODUCTION: Adipose tissue secretes numerous bioactive peptides, collectively termed “adipocytokines” or “adipokines”. Adipokines act in a paracrine, autocrine, or endocrine manner and regulate several physiological and pathological processes. Increasing evidence indicates that adipokines are implicated also in several malignancies, including lung cancer as well. AIM: The aim of this study is to summarize data concerning adipokines in lung cancer pathogenesis, prognosis and survival; the role of adipokines in lung cancer cachexia is also examined. MATERIALS AND METHODS: A systematic literature search was performed in the electronic database of Medline. Several studies and review articles met the inclusion criteria. RESULTS: Leptin and adiponectin are the best studied adipokines. The majority of the relevant studies has investigated the potential correlations mainly between leptin, adiponectin, and sometimes also resistin, and nutritional status, systemic inflammation of lung cancer or lung cancer cachexia and have also assessed their prognostic significance. Few other studies have studied genetic variations in leptin, leptin receptor and adiponectin genes and their association with lung cancer susceptibility and prognosis. The ongoing list of adipokines associated with lung cancer also includes resistin, chemerin, and visfatin. CONCLUSIONS: Increasing evidence points to the involvement of certain adipocytokines in lung cancer development, progression and prognosis. No conclusive evidence exists so far with regards to the role of adipocytokines in lung cancer cachexia. Future, longitudinal studies are warranted in order to clarify the role of adipocytokines in lung cancer and also uncover adipocytokines as novel therapeutic targets.

[450]

TÍTULO / TITLE: - Segmentectomy for c-T1N0M0 non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Surg Today. 2013 Jun 29.

●● Enlace al texto completo (gratis o de pago) [1007/s00595-013-0649-](#)

[7](#)

AUTORES / AUTHORS: - Nomori H

INSTITUCIÓN / INSTITUTION: - Department of General Thoracic Surgery, Kameda Medical Center, 929 Higashi-cho, Kamogawa, Chiba, 296-8602, Japan, hnomori@qk9.so-net.ne.jp.

RESUMEN / SUMMARY: - While the use of segmentectomy to treat lung cancer remains controversial, it has recently gained status as a radical surgery for cT1aN0M0 non-small cell lung cancer. I herein review the literature regarding segmentectomy and present my data to discuss the following issues: the prognosis after segmentectomy; local recurrence; the area required for lymph node dissection at the hilum and mediastinum; the technique used to cut the intersegmental plane; the selection of the lymph nodes for frozen sections; the postoperative pulmonary function; the role of completion lobectomy after radical

segmentectomy for cT1N0M0/pN1-2; expectations and concerns regarding the randomized controlled trial JCOG0802; and the future of segmentectomy.

PTPTPTP - JOURNAL ARTICLE ----- [451]

TÍTULO / TITLE: - Angiogenic axis angiopoietin-1 and angiopoietin-2/tie-2 in non-small cell lung cancer: a bronchoalveolar lavage and serum study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Adv Exp Med Biol. 2013;788:341-8. doi: 10.1007/978-94-007-6627-3_46.

●● Enlace al texto completo (gratis o de pago) [1007/978-94-007-6627-3_46](#)

AUTORES / AUTHORS: - Naumnik W; Naumnik B; Niewiarowska K; Ossolinska M; Chyczewska E

INSTITUCIÓN / INSTITUTION: - Department of Lung Diseases, Medical University of Bialystok, 14 Zurawia St, 15-540, Bialystok, Poland, wojciech.naumnik@umb.edu.pl.

RESUMEN / SUMMARY: - Angiopoietin-1 (Ang-1) and angiopoietin-2 (Ang-2), ligands for the Tie-2 receptor expressed on endothelial cells, play a critical role in angiogenesis, in concert with vascular endothelial growth factor (VEGF). Angiogenesis is important for tumor growth and development and also is implicated in the pathogenesis of interstitial lung diseases. The aim of this study was to evaluate the concentration of Ang-1, Ang-2, Tie-2, interleukin-18 (IL-18), transforming growth factor beta-1 (TGF beta1), and VEGF domain in both serum and bronchoalveolar lavage fluid (BALF) of lung cancer patients before chemotherapy. We studied 45 non-small cell lung cancer (NSCLC) patients (M/F; 38/7; mean age 62 +/- 4 years). The age-matched control groups consisted of 15 sarcoidosis (BBS), 15 hypersensitivity pneumonitis (HP), and 15 healthy subjects. The patients with NSCLC had a significantly higher level of Ang-1 compared with the BBS and healthy subjects, and a higher level of Ang-2 compared with the healthy subjects in both serum and BALF. BALF level of IL-18 was lower in the NSCLC than that in the HP group, but higher than that in the BBS patients. Serum level of IL-18 was higher in the NSCLC than in the healthy subjects. The NSCLC group had lower VEGF in BALF than that in healthy subjects. Receiver-operating characteristics (ROC) curves were applied to find the cut-off the serum levels of Ang-1 and Ang-2 levels in BALF. We did not find any correlation between the levels of Ang-1, Ang-2, Tie-2, and the stage of tumor or treatment response (prospectively). We conclude that the angiogenic axis Ang-1 and Ang-2/Tie-2 may play an important role in lung cancer development and their concentrations may be a useful marker at the time of initial diagnosis of lung cancer.

[452]

TÍTULO / TITLE: - Asbcopal effects after conventional and stereotactic lung irradiation of non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):e71-2. doi: 10.1097/JTO.0b013e318292c55a.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e318292c55a](#)

AUTORES / AUTHORS: - Siva S; Callahan J; Macmanus MP; Martin O; Hicks RJ; Ball DL

INSTITUCIÓN / INSTITUTION: - *Sir Peter MacCallum Department of Oncology, University of Melbourne, Victoria, Australia; daggerDivision of Radiation Oncology and Cancer Imaging, MacCallum Cancer Centre, East Melbourne, Victoria, Australia; and double daggerMolecular Radiation Biology Laboratory, Peter MacCallum Cancer Centre, East Melbourne, Victoria, Australia.

[453]

TÍTULO / TITLE: - An unusual presentation of malignant pleural mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Jul;8(7):e63-4. doi: 10.1097/JTO.0b013e318286c1a5.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e318286c1a5](#)

AUTORES / AUTHORS: - Lacle MM; van Oosterhout MF

INSTITUCIÓN / INSTITUTION: - Department of Pathology, University Medical Center, Utrecht, The Netherlands.

[454]

TÍTULO / TITLE: - Tumor lysis syndrome in limited-stage small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Jul;8(7):e61-2. doi: 10.1097/JTO.0b013e318286bb3b.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e318286bb3b](#)

AUTORES / AUTHORS: - Boikos SA; Forde PM; Chatterjee S; Hann CL

INSTITUCIÓN / INSTITUTION: - Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA.

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[455]

TÍTULO / TITLE: - Erlotinib versus gefitinib for control of leptomeningeal carcinomatosis in non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Aug;8(8):1069-74. doi: 10.1097/JTO.0b013e318294c8e8.

●● Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e318294c8e8](#)

AUTORES / AUTHORS: - Lee E; Keam B; Kim DW; Kim TM; Lee SH; Chung DH; Heo DS

INSTITUCIÓN / INSTITUTION: - *Department of Internal Medicine, Seoul National University Hospital, Seoul, Korea; daggerCancer Research Institute, Seoul National University College of Medicine, Seoul, Korea; and double daggerDepartment of Pathology, Seoul National University Hospital, Seoul, Korea.

RESUMEN / SUMMARY: - INTRODUCTION: Leptomeningeal carcinomatosis (LMC) from non-small-cell lung cancer (NSCLC) is a clinically important neurological complication in the era of epidermal growth factor receptor (EGFR) tyrosine kinase inhibitors (TKIs). The purpose of this study was to compare the efficacy of gefitinib and erlotinib for control of LMC in NSCLC. METHODS: We retrospectively reviewed medical records of 25 EGFR TKI-treated NSCLC patients with LMC between 2004 and 2012 at Seoul National University Hospital. Cytologic negative conversion was defined as absence of malignant cells in the cerebrospinal fluid three times in succession. Cytologic conversion rates were compared between the gefitinib arm and the erlotinib arm.

RESULTS: Nine patients had exon 21 point mutations and eight patients had exon 19 deletional mutations. Nine of 25 patients had already used EGFR TKIs and switched to another EGFR TKI after LMC occurrence. The other 16 patients received EGFR TKIs after LMC diagnoses. All the patients received intrathecal chemotherapy, including methotrexate, and six of them were treated with combined whole-brain radiotherapy. Gefitinib and erlotinib were administered to 11 and 14 patients, respectively. Ten patients had LMC controlled with cytologic negative conversion, whereas in 15 patients, cytological clearance of the cerebrospinal fluid could not be achieved. Patients treated with erlotinib showed better cytologic conversion rate of LMC than those with gefitinib (64.3% [9 of 14] in the erlotinib arm versus 9.1% [1 of 11] in the gefitinib arm; $p = 0.012$).

CONCLUSION: This study suggested that erlotinib had better control rate for LMC in NSCLC than gefitinib. Further prospective study is warranted.

[456]

TÍTULO / TITLE: - Lung adenocarcinoma with ipsilateral breast metastasis: a simple coincidence?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Oncol. 2013 Jul;8(7):974-9. doi: 10.1097/JTO.0b013e31828f6873.

- Enlace al texto completo (gratis o de pago)

[1097/JTO.0b013e31828f6873](https://doi.org/10.1097/JTO.0b013e31828f6873)

AUTORES / AUTHORS: - Huang HC; Hang JF; Wu MH; Chou TY; Chiu CH

INSTITUCIÓN / INSTITUTION: - Department of Chest Medicine, Taipei Veterans General Hospital, Taipei, Taiwan.

RESUMEN / SUMMARY: - INTRODUCTION: Lung cancer with breast metastasis is rare. However, differentiating between primary breast cancer and metastatic lung adenocarcinoma is of clinical importance. The metastasis cascade of how cancer cells migrate from the primary lung tumor to the breast is not clear yet. METHODS: Pathology and cytology databases were searched for patients diagnosed to have lung adenocarcinoma with breast metastasis. Their medical records, chest computed tomography images, and pathology slides were reviewed independently. RESULTS: We identified six lung adenocarcinoma patients with breast metastases in a 10-year period from a tertiary medical center. Interestingly, all breast metastases affected the same side as the primary lung cancers. In addition, all our cases shared other clinical manifestations, namely, ipsilateral pleural effusion/thickness and axillary lymph node enlargement. CONCLUSION: Because this distinctive feature could not be explained by simple coincidence, we consider that lung adenocarcinoma may preferentially metastasize to the ipsilateral breast through a stepwise mechanism, involving pleural seeding, axillary lymph node metastasis, and retrograde lymphatic spreading into the breast.

[457]

TÍTULO / TITLE: - Paxillin mutations affect focal adhesions and lead to altered mitochondrial dynamics: Relevance to lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Biol Ther. 2013 Jul 1;14(7):679-91. doi: 10.4161/cbt.25091. Epub 2013 May 31.

- Enlace al texto completo (gratis o de pago) [4161/cbt.25091](https://doi.org/10.4161/cbt.25091)

AUTORES / AUTHORS: - Kawada I; Hasina R; Lennon FE; Bindokas VP; Usatyuk P; Tan YH; Krishnaswamy S; Arif Q; Carey G; Hseu RD; Robinson M; Tretiakova M; Brand TM; Iida M; Ferguson MK; Wheeler DL; Husain AN; Natarajan V; Vokes EE; Singleton PA; Salgia R

INSTITUCIÓN / INSTITUTION: - Department of Medicine; University of Chicago; Chicago, IL USA.

RESUMEN / SUMMARY: - Cytoskeletal and focal adhesion abnormalities are observed in several types of cancer, including lung cancer. We have previously reported that paxillin (PXN) was mutated, amplified, and overexpressed in a significant number of lung cancer patient samples, that PXN protein was upregulated in more advanced stages of lung cancer compared with lower stages, and that the PXN gene was also amplified in some pre-neoplastic lung lesions. Among the mutations investigated, we previously found that PXN

variant A127T in lung cancer cells enhanced cell proliferation and focal adhesion formation and colocalized with the anti-apoptotic protein B Cell Lymphoma 2 (BCL-2), which is known to localize to the mitochondria, among other sites. To further explore the effects of activating mutations of PXN on mitochondrial function, we cloned and expressed wild-type PXN and variants containing the most commonly occurring PXN mutations (P46S, P52L, G105D, A127T, P233L, T255I, D399N, E423K, P487L, and K506R) in a GFP-tagged vector using HEK-293 human embryonic kidney cells. Utilizing live-cell imaging to systematically study the effects of wild-type PXN vs. mutants, we created a model that recapitulates the salient features of the measured dynamics and conclude that compared with wild-type, some mutant clones confer enhanced focal adhesion and lamellipodia formation (A127T, P233L, and P487L) and some confer increased association with BCL-2, Dynamin-related Protein-1 (DRP-1), and Mitofusion-2 (MFN-2) proteins (P233L and D399N). Further, PXN mutants, through their interactions with BCL-2 and DRP-1, could regulate cisplatin drug resistance in human lung cancer cells. The data reported herein suggest that mutant PXN variants play a prominent role in mitochondrial dynamics with direct implications on lung cancer progression and hence, deserve further exploration as therapeutic targets.

TÍTULO / TITLE: - Antitumor and modeling studies of a penetratin-peptide that targets E2F-1 in small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Biol Ther. 2013 Jun 3;14(8).

AUTORES / AUTHORS: - Xie X; Kerrigan JE; Minko T; Garbuzenko O; Lee KC; Scarborough A; Abali EE; Budak-Alpdogan T; Johnson-Farley N; Banerjee D; Scotto KW; Bertino JR

INSTITUCIÓN / INSTITUTION: - Department of Pharmacology and Medicine; Cancer Institute of New Jersey; Robert Wood Johnson Medical School; UMDNJ; New Brunswick, NJ USA.

RESUMEN / SUMMARY: - E2F-1, a key transcription factor necessary for cell growth, DNA repair and differentiation, is an attractive target for development of anticancer drugs in tumors that are E2F “oncogene addicted.” We identified a peptide isolated from phage clones that bound tightly to the E2F-1 promoter consensus sequence. The peptide was coupled to penetratin to enhance cellular uptake. Modeling of the penetratin-peptide (PEP) binding to the DNA E2F-1 promoter demonstrated favorable interactions that also involved the participation of most of the penetratin sequence. The penetratin-peptide (PEP) demonstrated potent in vitro cytotoxic effects against a range of cancer cell lines, particularly against Burkitt lymphoma cells and Small Cell Lung Cancer (SCLC) cells. Further studies in the H-69 SCLC cell line showed that the PEP inhibited transcription of E2F-1 and also several important E2F-regulated enzymes involved in DNA synthesis, namely, thymidylate synthase, thymidine

kinase and ribonucleotide reductase. As the PEP was found to be relatively unstable in serum, it was encapsulated in PEGylated liposomes for in vivo studies. Treatment of mice bearing the human small cell lung carcinoma H-69 with the PEP encapsulated in PEGylated liposomes caused tumor regression without significant toxicity. The liposome encapsulated PEP has promise as an antitumor agent, alone or in combination with inhibitors of DNA synthesis.

[458]

TÍTULO / TITLE: - Therapies currently in Phase II trials for malignant pleural mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Expert Opin Investig Drugs. 2013 Jul 2.

●● Enlace al texto completo (gratis o de pago)

[1517/13543784.2013.816281](#)

AUTORES / AUTHORS: - Pinton G; Manente AG; Tavian D; Moro L; Mutti L

INSTITUCIÓN / INSTITUTION: - University of Piemonte Orientale 'A. Avogadro', Department of Pharmaceutical Sciences, L.go Donegani 2, 28100 Novara, Italy +39 0321 375820; +39 0321 375821; moro@pharm.unipmn.it.

RESUMEN / SUMMARY: - Introduction: Malignant pleural mesothelioma (MPM) is an aggressive cancer associated with asbestos exposure, whose incidence will peak within the next years. Despite an overall low response rate, the current first-line therapy is represented by combined chemotherapy with cisplatin and antifolate. Moreover, there are no currently approved regimens for relapsed or refractory MPM. Therefore, it is clear how both preclinical and clinical researches aimed at identifying new therapeutic targets and testing them in early clinical settings are badly needed. Areas covered: The aim of this review is to summarize and critically comment the ongoing Phase II trials for MPM. Expert opinion: Over the past few years, there has been a significant endeavor of addressing the clinical research for MPM beyond the very modest results of chemotherapy. Nonetheless, our understanding is that the treatment of MPM should not be merely 'copied' from that of other much better studied tumors. In the light of recent results, studies toward the metabolic characteristics of this tumor are being progressively addressed. These evidences are disclosing a rather unusual model of malignancy, very likely to be more sensitive to novel 'MPM cells- and microenvironment-tailored' therapy addressing these characteristics rather than the sole cancer proliferation.

[459]

TÍTULO / TITLE: - Endothelial cell protein C receptor (EPCR) is expressed by lung carcinoma and correlated with clinical parameters.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lab. 2013;59(3-4):375-80.

AUTORES / AUTHORS: - Heng W; Mu CY; Chen C; Huang JA; Wang ZY
INSTITUCIÓN / INSTITUTION: - Respiratory Department, The First Affiliated Hospital of Soochow University, Suzhou, China. hwsdfyy@163.com
RESUMEN / SUMMARY: - BACKGROUND: Endothelial cell protein C receptor (EPCR) is a cellular receptor for protein C and activated protein C (APC). In view of convincing evidence, it seems that EPCR, beyond its effects on coagulation and inflammation, could interfere with carcinogenesis. METHODS: In the present study, we investigated EPCR expression in 60 lung carcinoma tissues and 37 para-carcinoma tissues, and analyzed the relationship between EPCR expression and histopathological parameters, clinical parameters, and vascular density. RESULTS: In vitro, culturing lung cancer cell lines constitutively expressed EPCR at the level of mRNA and protein. The pathologic results clearly demonstrated that EPCR expression, including membranous and cytoplasmic staining, was significantly higher in carcinoma than that in the para-carcinoma tissues. The EPCR expression was therefore related to tumor size, lymph node metastasis as well as TNM stage. The expression of EPCR was also significantly correlated with microvessel density (MVD). CONCLUSIONS: These observations provide evidence that EPCR may be involved in the carcinogenesis of lung cancer. It is suggested that EPCR may be a useful biomarker for evaluating the clinical status of lung cancer.

[460]

- CASTELLANO -

TÍTULO / TITLE: Ein neuer Überlebensscore für Patienten mit Hirnmetastasen eines nicht-kleinzelligen Lungenkarzinoms.

TÍTULO / TITLE: - A new survival score for patients with brain metastases from non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Strahlenther Onkol. 2013 Jun 7.

●● Enlace al texto completo (gratis o de pago) [1007/s00066-013-0362-](http://1007/s00066-013-0362-x)

[X](#)

AUTORES / AUTHORS: - Rades D; Dziggel L; Segedin B; Oblak I; Nagy V; Marita A; Schild SE; Trang NT; Khoa MT

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, University Hospital Schleswig-Holstein, Campus Luebeck, Ratzeburger Allee 160, 23538, Luebeck, Germany, Rades.Dirk@gmx.net.

RESUMEN / SUMMARY: - BACKGROUND AND PURPOSE: Non-small cell lung cancer (NSCLC) is the most common primary tumor in patients developing brain metastasis. This study was performed to develop and validate a survival score particularly for this group of patients. PATIENTS AND METHODS: In this study, the data of 514 patients treated with whole-brain radiotherapy (WBRT) alone for brain metastasis from NSCLC were retrospectively analyzed. The

patients were divided into a test group (n = 257) and a validation group (n = 257). In the multivariate analysis of the test group, gender, performance status, and extracranial metastases were independent predictors of survival and, therefore, included in the scoring system. The score for each of the three factors was obtained from the 6-month survival rate (in %) divided by 10. The total scores that represented the sum of the three scores were 5, 8, 9, 11, 12, or 15 points. Three prognostic groups were formed according to the total scores. RESULTS: The 6-month survival rates in the test group were 9 % for 5-9 points (group A), 54 % for 11-12 points (group B), and 79 % for 15 points (group C). In the validation group the 6-month survival rates were 14, 56, and 78 %, respectively. The comparisons between the prognostic groups A, B, and C of the test and the validation group did not reveal any significant differences. CONCLUSION: This new score appears valid and reproducible. It can help predict the survival of patients with brain metastasis from NSCLC.

[461]

TÍTULO / TITLE: - A tailored, supportive care intervention using systematic assessment designed for people with inoperable lung cancer: a randomised controlled trial.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Psychooncology. 2013 Jun 4. doi: 10.1002/pon.3306.

●● [Enlace al texto completo \(gratis o de pago\) 1002/pon.3306](#)

AUTORES / AUTHORS: - Schofield P; Ugalde A; Gough K; Reece J; Krishnasamy M; Carey M; Ball D; Aranda S

INSTITUCIÓN / INSTITUTION: - Department of Cancer Experiences Research, Peter MacCallum Cancer Centre, Melbourne, Australia; Sir Peter MacCallum Department of Oncology, Faculty of Medicine, Dentistry and Health Sciences, The University of Melbourne, Parkville, Australia; School of Behavioural Science, The University of Melbourne, Parkville, Australia; School of Nursing, The University of Melbourne, Parkville, Australia.

RESUMEN / SUMMARY: - OBJECTIVE: People with inoperable lung cancer experience higher levels of distress, more unmet needs and symptoms than other cancer patients. There is an urgent need to test innovative approaches to improve psychosocial and symptom outcomes in this group. This study tested the hypothesis that a tailored, multidisciplinary supportive care programme based on systematic needs assessment would reduce perceived unmet needs and distress and improve quality of life. METHODS: A randomised controlled trial design was used. The tailored intervention comprised two sessions at treatment commencement and completion. Sessions included a self-completed needs assessment, active listening, self-care education and communication of unmet psychosocial and symptom needs to the multidisciplinary team for management and referral. Outcomes were assessed with the Needs Assessment for Advanced Lung Cancer Patients, Hospital Anxiety and

Depression Scale, Distress Thermometer and European Organization of Research and Treatment of Cancer Quality of Life Q-C30 V2.0. RESULTS: One hundred and eight patients with a diagnosis of inoperable lung or pleural cancer (including mesothelioma) were recruited from a specialist facility before the trial closed prematurely (original target 200). None of the primary contrasts of interest were significant (all $p > 0.10$), although change score analysis indicated a relative benefit from the intervention for unmet symptom needs at 8 and 12 weeks post-assessment (effect size = 0.55 and 0.40, respectively). CONCLUSION: Although a novel approach, the hypothesis that the intervention would benefit perceived unmet needs, psychological morbidity, distress and health-related quality of life was not supported overall. Copyright © 2013 John Wiley & Sons, Ltd.

[462]

TÍTULO / TITLE: - The Bottleneck Effect in Lung Cancer Clinical Trials.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cancer Educ. 2013 Jun 4.

●● Enlace al texto completo (gratis o de pago) [1007/s13187-013-0491-](#)

[Z](#)

AUTORES / AUTHORS: - Gonzalez LE; Sutton SK; Pratt C; Gilbertson M; Antonia S; Quinn GP

INSTITUCIÓN / INSTITUTION: - Department of Biostatistics, H. Lee Moffitt Cancer Center and Research Institute, 12902 Magnolia Drive, MRC CANCONT, Tampa, FL, 33612, USA.

RESUMEN / SUMMARY: - Clinical trials provide the most promising way to improve treatment outcomes in cancer. This study examined the rate at which eligible patients with lung cancer, at a National Cancer Institute-designated cancer center in the South, were offered a clinical trial and explored for reasons for ineligibility. We retrospectively reviewed 300 randomly selected lung cancer patients' medical records seen in 2010, to assess clinical trial offers to eligible patients, reasons for not offering an eligible patient a trial, demographic factors associated with eligibility, and reasons for refusal among those offered a trial. Of the 300 patient charts, seven were excluded for lack of confirmed lung cancer diagnosis. Forty-six of the remaining 293 (15.7 %) patients were eligible for a clinical trial. Forty-five of the 46 (97.8 %) were considered for a trial by their oncologist. Thirty-five of the 45 (77.8 %) were offered a trial: 15 agreed (42.9 % of those offered, 5.1 % of patients reviewed), 11 declined, and 9 were undecided at the end of the review window. Patients with poor Eastern Cooperative Oncology Group (ECOG) performance status levels and small cell (SC) diagnoses were significantly less likely to be eligible for a trial. Results suggest that oncologists at the cancer center are effectively presenting all eligible patients with the option of a clinical trial; however, there is a need to

increase the number of approved clinical trials for patients with SC or ECOG score greater than 2.

[463]

TÍTULO / TITLE: - Recurrent ossifying fibroma of the maxillary sinus in an adult patient.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pathologica. 2013 Feb;105(1):11-4.

AUTORES / AUTHORS: - Cabibi D; Speciale R; Lorusso F

INSTITUCIÓN / INSTITUTION: - Department of Human Pathology, University of Palermo, Palermo, Italy. cabibidaniela@virgilio.it

RESUMEN / SUMMARY: - In some aspects, the terminology of fibro-osseous lesions of the head remain equivocal. The WHO classification suggested to group cemento-ossifying fibroma and ossifying fibroma under the term “ossifying fibroma”. Based on the different age of onset, localization and risk of recurrence, two types have been described: “juvenile ossifying fibroma”, with early age of onset, which needs to be treated with wide surgical resection due to the high risk of recurrence; and “adult ossifying fibroma”, arising in adult patients, with low recurrence rate, properly treated by conservative surgery. We describe a case of an “adult ossifying fibroma” of a 57-year-old woman with several relapses, for whom conservative therapy was inadequate. We think that the “early” age of onset should not be included among the essential characteristics of ossifying fibroma with a high risk of recurrence.

[464]

TÍTULO / TITLE: - Anxiety, depression and related factors in family caregivers of newly diagnosed lung cancer patients before first treatment.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Psychooncology. 2013 Jul 28. doi: 10.1002/pon.3328.

●● [Enlace al texto completo \(gratis o de pago\) 1002/pon.3328](#)

AUTORES / AUTHORS: - Lee YH; Liao YC; Liao WY; Shun SC; Liu YC; Chan JC; Yu CJ; Yang PC; Lai YH

INSTITUCIÓN / INSTITUTION: - National Taiwan University, School of Nursing, College of Medicine, Taipei, Taiwan.

RESUMEN / SUMMARY: - **OBJECTIVE:** This study aimed to (i) explore the prevalence and levels (severity) of anxiety and depression in family caregivers (FCs) of patients newly diagnosed with advanced lung cancer (stage IIIb or IV) before first treatment, and (ii) identify the factors related to FCs' anxiety and depression. **METHODS:** For this cross-sectional study, 106 patient-FC dyads were recruited from a medical center in northern Taiwan. FCs' anxiety and depression were measured using the self-report Hospital Anxiety and Depression Scale, and FCs' ability to manage patients' symptoms was

assessed using the Self-Efficacy in Symptom Management Scale. FCs' risks for anxiety and depression were separately identified using two multivariate logistic regression models. RESULTS: This study found two major results. First, before patients' first treatment, 50.9% and 32.1% of FCs were at risk for anxiety and depression, respectively. FCs' overall mean anxiety and depression scores were 7.7 (SD = 4.7) and 6.1 (SD = 4.5), respectively. Second, both FCs' anxiety and depression were significantly related to four factors: caring for another sick family member, younger age, having pain problems, and lower self-efficacy in managing symptoms. CONCLUSION: Family caregivers of patients newly diagnosed with advanced lung cancer had anxiety and depression before the patients' first treatment. We strongly suggest developing and testing interventions to reduce FCs' psychological distress and enhance their quality of life, thus ensuring better quality of patient care. Copyright © 2013 John Wiley & Sons, Ltd.

[465]

TÍTULO / TITLE: - BIBF 1120/ nintedanib : a new triple angiokinase inhibitor-directed therapy in patients with non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Expert Opin Investig Drugs. 2013 Aug;22(8):1081-8. doi: 10.1517/13543784.2013.812630. Epub 2013 Jun 22.

●● Enlace al texto completo (gratis o de pago)

[1517/13543784.2013.812630](http://dx.doi.org/10.1517/13543784.2013.812630)

AUTORES / AUTHORS: - Rolfo C; Raez LE; Bronte G; Santos ES; Papadimitriou K; Buffoni L; van Meerbeeck JP; Russo A

INSTITUCIÓN / INSTITUTION: - Antwerp University Hospital, Oncology Department, Phase I a Early Clinical Trials Unit , Edegem , Belgium.

RESUMEN / SUMMARY: - Introduction: Several new targeted agents with anti-angiogenic properties have been developed recently, including vandetanib, sunitinib, sorafenib, bevacizumab and others. Tumor development, progression, metastasis are strongly linked to angiogenesis. Targeted agents like bevacizumab, a monoclonal antibody which targets VEGF, have been fully developed in several solid tumors. These new agents strongly advocate that targeting angiogenesis is one of the best approaches for cancer therapy. Areas covered: Those agents that target additional pro-angiogenic intracellular signaling pathways beyond VEGF signaling have also the potential to contribute to anticancer therapies. The authors present here nintedanib (BIBF 1120), a triple angiokinase inhibitor. It targets not only VEGFRs, but also FGFR and PDGFR. All the available clinical information regarding Phase I - II trials and the toxicity and efficacy of BIBF 1120 both as single agent and in combination with cytotoxic agents in non-small cell lung cancer (NSCLC) is reviewed and discussed here. Expert opinion: Up till now, Phase I and II trials with nintedanib showed an improvement for survival of advanced NSCLC patients. Tolerability

profile seems to be acceptable in these clinical trials. However, Phase III trials are mandatory to translate these findings into clinical practice. The research for predictive biomarkers could improve the success of these anti-angiogenic agents.

[466]

TÍTULO / TITLE: - The clinical value of new tumor biomarker cytokeratin 2G2 detection in non-small cell lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lab. 2013;59(5-6):551-6.

AUTORES / AUTHORS: - Liang ZK; Yin YJ; Wu ED; Shi GL

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Beijing Chest Hospital, Capital Medical University, Beijing, China.

RESUMEN / SUMMARY: - BACKGROUND: Many tumor markers are analyzed for usefulness in diagnosis, prognosis, and monitoring. The purpose of this study was to evaluate a new type of tumor biomarker, cytokeratin (CK)-2G2, in serum for the early diagnosis, confirmative diagnosis as well as assessment of treatments of non-small cell lung cancer (NSCLC). METHODS: Use a chemiluminescent method to examine the serum CK-2G2 levels in 100 patients with non-malignant lung diseases and 100 cases from the healthy population, as well as 124 cases of NSCLC patients prior to chemotherapy, after one course of treatment and after two courses of treatment. RESULTS: The average levels of CK-2G2 in the serum of NSCLC patients was found to be significantly higher than that of the group of non-malignant patients as well as the healthy control group ($p < 0.01$). It was further observed that CK-2G2 is markedly higher in squamous-cell carcinoma than in adenocarcinoma ($p < 0.05$) whereas CK-2G2 was found to be higher in stages III and IV than stages I and II ($p < 0.05$) and CK-2G2 is markedly higher in large tumor size ($> 3\text{cm}$) than in small tumor size ($\leq 3\text{cm}$) ($p < 0.05$). Serum CK-2G2 levels for patients with cancer progression were found to increase after two courses of chemotherapy ($p < 0.01$) whereas patients with stabilized tumorigenesis or tumor regression showed a significant trend of CK-2G2 decrease ($p < 0.01$). CONCLUSIONS: Detection of the new tumor biomarker CK-2G2 has certain clinical values for early diagnosis, verification of diagnosis as well as classification of patients. Thus it is warranted that CK-2G2 be widely deployed as a new type of cost effective parameter for evaluating efficacy of chemotherapy of NSCLC.

[467]

TÍTULO / TITLE: - Referred shoulder pain in a patient with small cell lung cancer. Adrenal gland metastases.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Neth J Med. 2013 May;71(4):203-6.

AUTORES / AUTHORS: - van der Bruggen W; Arens AI; van der Drift MA; de Geus-Oei LF; Gotthardt M; Oyen WJ

INSTITUCIÓN / INSTITUTION: - Department of Nuclear Medicine, Slingeland Hospital, Doetinchem, the Netherlands. W.van.der.Bruggen@slingeland.nl

[468]

TÍTULO / TITLE: - Moving Beyond the National Lung Screening Trial: Discussing Strategies for Implementation of Lung Cancer Screening Programs.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncologist. 2013 Jul 19.

- Enlace al texto completo (gratis o de pago)

1634/theoncologist.2013-0007

AUTORES / AUTHORS: - Goulart BH; Ramsey SD

INSTITUCIÓN / INSTITUTION: - Hutchinson Institute for Cancer Outcomes Research (HICOR), Public Health Sciences Division, Fred Hutchinson Cancer Research Center, Seattle, Washington, USA;

RESUMEN / SUMMARY: - The National Lung Screening Trial (NLST) has sparked new interest in the adoption of lung cancer screening using low-dose computed tomography (LDCT). If adopted at a national level, LDCT screening may prevent approximately 18,000 lung cancer deaths per year, potentially constituting a high-value public health intervention. Before incorporating LDCT screening into practice, health care institutions need to consider the risks associated with LDCT screening and the impact of LDCT screening on health care costs, as well as other remaining areas of uncertainty, including the unknown cost-effectiveness of LDCT screening. This article will review the benefits and risks of LDCT screening in light of the results of the NLST and other randomized trials, it will discuss the additional health care costs associated with LDCT screening from the perspective of health care payers, and it will examine the published cost-effectiveness analyses of LDCT screening. A subsequent discussion highlights guideline recommendations for implementation strategies, the goals of which are to ensure that those eligible for LDCT screening derive the benefits while minimizing the risks of screening and avoiding an unnecessary escalation in screening-related costs. The article concludes by endorsing the use of LDCT screening in institutions capable of responsible implementation of screening in both medical and economical terms. The key elements of responsible implementation include the development of standardized screening practices, careful selection of screening candidates, and the creation of prospective registries that will mitigate current areas of uncertainty regarding LDCT screening.

[469]

TÍTULO / TITLE: - Antitumor efficacy of paclitaxel-loaded polylactide/poly(ethylene glycol) nanoparticles combination with exercise in tumor-bearing mice.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Nanosci Nanotechnol. 2013 Jun;13(6):3868-73.

AUTORES / AUTHORS: - Zhang J; Ma Z; Liu P; Ji Q; Qi J; Duan Y

INSTITUCIÓN / INSTITUTION: - Physical Education College, Yangzhou University, Yangzhou 225009, China.

RESUMEN / SUMMARY: - The nanoparticles (NPs) provide a promising prospect for tumor therapy, and exercise is also becoming readily and accepted as a beneficial adjunct therapy to maintain or enhance quality of life in cancer patients. We investigate the antitumor efficacy of paclitaxel (PT) loaded polylactide/poly(ethylene glycol) NPs (PT-PLA/PEG NPs) under the exercise conditions. Results showed that within the first 7 days, the PT concentration in tumor maintained at a higher level in the PT-PLA/PEG NPs + exercise (PT-PLA/PEG NPs + EX) group as compared with the PT-PLA/PEG NPs group. All the phagocytosis rates of macrophages were significantly decreased below the CON in exercise group. The most significant antitumor effect was observed in PT-PLA/PEG NPs + EX group, demonstrating that the PT-PLA/PEG NPs improved the concentration of PT, and exercise could further increased its therapeutic efficiency for tumor. These researches may provide an effective means for tumor therapy.

[470]

TÍTULO / TITLE: - Same Chemotherapy Regimen Leads to Different Myelotoxicity in Different Malignancies: A Comparison of Chemotherapy-Associated Myelotoxicity in Patients With Advanced Ovarian and Non-Small-Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Ther. 2013 Jun 18.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1097/MJT.0b013e31828232b8](#)

AUTORES / AUTHORS: - Tas F; Yildiz I; Kilic L; Ciftci R; Keskin S; Sen F

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Institute of Oncology, Istanbul University, Istanbul, Turkey.

RESUMEN / SUMMARY: - Carboplatin-paclitaxel chemotherapy combination is the standard first-line treatment of advanced ovarian cancer and is the most commonly used treatment combination shown to be effective in advanced non-small-cell lung cancer (NSCLC). The most important dose-limiting side effect is hematologic toxicity. In this study, the severity of treatment-related myelotoxicity is compared in patients with advanced ovarian and lung cancers who received same schedule of carboplatin-paclitaxel. The study was prospectively performed from February 2009 to July 2011 and involved 103 patients with

stages Ic-IV ovarian (n = 51) and advanced NSCLC (n = 52) who were administered a maximum of 6 cycles of carboplatin-paclitaxel as a first-line treatment. Full blood counts were measured before treatment, before each chemotherapy cycle during therapy, and at the first and sixth month after therapy. The median ages were 59 years (range, 35-77 years) for patients with NSCLC and 56 years (range, 38-75 years) for patients with ovarian cancer. The frequencies of anemia were 17% and 28.6% before the initiation of chemotherapy, 39.2% and 68.0% at the third cycle of treatment, and 44.2% and 45.2% at the sixth cycle of treatment in patients with NSCLC and ovarian cancer, respectively. Initial leukopenia rates were 3.4% and 0%; at the third cycle 46.0% and 41.2%; and at the sixth cycle 41.9% and 48.8% in patients with NSCLC and ovarian cancer, respectively. At the third cycle, 2.5% of the patients with NSCLC and 10.4% of the patients with ovarian cancer had thrombocytopenia, and at the sixth cycle, 23.3% of the patients with NSCLC and 25% of the patients with ovarian cancer had thrombocytopenia. Hemoglobin, leukocyte, and platelet values at the third cycle were significantly lower than those at admission in both cancer groups. Declines in hemoglobin levels in patients with NSCLC and in platelets in patients with ovarian cancer at the sixth cycle were statistically significant compared with the third cycle. In conclusion, the same schedule of chemotherapy may lead to different myelotoxicities in different types of cancer. These results should be taken into consideration in terms of supportive care and management of toxicity.

[471]

TÍTULO / TITLE: - Patient-Provider Delays in Superior Vena Caval Obstruction of Lung Cancer and Outcomes.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Hosp Palliat Care. 2013 May 31.

●● Enlace al texto completo (gratis o de pago)

[1177/1049909113491622](#)

AUTORES / AUTHORS: - Ampil FL; Caldito G

INSTITUCIÓN / INSTITUTION: - 1Division of Therapeutic Radiology, Louisiana State University Health, Shreveport, LA, USA.

RESUMEN / SUMMARY: - This retrospective study investigates the types of delay in the initiation of palliative thoracic radiotherapy for superior vena caval obstruction (SVCO) of lung cancer (LCa) and the effect of treatment delay on patient outcomes. Treatment delays were categorized as patient delay (duration of symptoms), in-hospital delay, and professional delay and were determined in 42 people treated by radiation for palliation of the complicated neoplastic condition between 1981 and 2009. The median period of patient delay was 26.2 days, in-hospital delay was 3.5 days, and professional delay was 1.5 days. The majority (80%) of these individuals were uninsured or underinsured, and 69% presented with locally advanced LCa. The overall response rate was 84%, and

the 1-year survival rate was 24%. Despite the longest patient-related delay, symptomatic individuals overall derived palliation from conventional treatment. Improved efforts toward early diagnosis and treatment of patients with SVCO-LCa need to be continued.

[472]

TÍTULO / TITLE: - Determination of EGFR mutations in single cells microdissected from enriched lung tumor cells in peripheral blood.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Anal Bioanal Chem. 2013 Jul 5.

●● [Enlace al texto completo \(gratis o de pago\) 1007/s00216-013-7156-](#)

[y](#)

AUTORES / AUTHORS: - Ran R; Li L; Wang M; Wang S; Zheng Z; Lin PP

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Diseases, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences, Beijing, 100730, China.

RESUMEN / SUMMARY: - A minimally invasive and repeatable approach for real-time epidermal growth factor receptor (EGFR) mutation surveillance would be highly beneficial for individualized therapy of late stage lung cancer patients whose surgical specimens are often not available. We aim to develop a viable method to detect EGFR mutations in single circulating tumor cells (CTCs). Using a model CTC system of spiked tumor cells in whole blood, we evaluated EGFR mutation determination in single tumor cells enriched from blood. We used magnetic beads labeled with antibody against leukocyte surface antigens to deplete leukocytes and enrich native CTCs independent of epithelial marker expression level. We then used laser cell microdissection (LCM) to isolate individual CTCs, followed by whole-genome amplification of the DNA for exon 19 microdeletion, L858R and T790M mutation detection by PCR sequencing. EGFR mutations were successfully measured in individual spiked tumor cells enriched from 7.5 ml whole blood. Whole-genome amplification provided sufficient DNA for mutation determination at multiple sites. Ninety-five percent of the single CTCs microdissected by LCM (19/20) yielded PCR amplicons for at least one of the three mutation sites. The amplification success rates were 55 % (11/20) for exon 19 deletion, 45 % (9/20) for T790M, and 85 % (17/20) for L858R. Sequencing of the amplicons showed allele dropout in the amplification reactions, but mutations were correctly identified in 80 % of the amplicons. EGFR mutation determination from single captured tumor cells from blood is feasible with the approach described here. However, to overcome allele dropout and to obtain reliable information about the tumor's EGFR status, multiple individual tumor cells should be assayed.

[473]

TÍTULO / TITLE: - Pharmacokinetic analysis of [F]FAZA in non-small cell lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Nucl Med Mol Imaging. 2013 Jun 6.

- Enlace al texto completo (gratis o de pago) [1007/s00259-013-2462-](#)

[3](#)

AUTORES / AUTHORS: - Verwer EE; van Velden FH; Bahce I; Yaqub M; Schuit RC; Windhorst AD; Raijmakers P; Lammertsma AA; Smit EF; Boellaard R

INSTITUCIÓN / INSTITUTION: - Department of Radiology & Nuclear Medicine, VU University Medical Center, PO Box 7057, 1007 MB, Amsterdam, The Netherlands, e.verwer@vumc.nl.

RESUMEN / SUMMARY: - PURPOSE: [18F]Fluoroazomycin arabinoside (FAZA) is a positron emission tomography (PET) tracer developed to enable identification of hypoxic regions within a tumour. The aims of this study were to determine the optimal kinetic model along with validation of using alternatives to arterial blood sampling for analysing [18F]FAZA studies and to assess the validity of simplified analytical methods. METHODS: Dynamic 70-min [18F]FAZA PET/CT scans were obtained from nine non-small cell lung cancer patients. Continuous arterial blood sampling, together with manual arterial and venous sampling, was performed to derive metabolite-corrected plasma input functions. Volumes of interest (VOIs) were defined for tumour, healthy lung muscle and adipose tissue generating [18F]FAZA time-activity curves (TACs). TACs were analysed using one- and two-tissue compartment models using both metabolite-corrected blood sampler plasma input functions (BSIF) and image-derived plasma input functions (IDIF). RESULTS: The reversible two-tissue compartment model with blood volume parameter (2T4k+VB) best described kinetics of [18F]FAZA in tumours. Volumes of distribution (VT) obtained using IDIF correlated well with those derived using BSIF ($R^2 = 0.82$). Venous samples yielded the same radioactivity concentrations as arterial samples for times >50 min post-injection (p.i.). In addition, both plasma to whole blood ratios and parent fractions were essentially the same for venous and arterial samples. Both standardised uptake value (SUV), normalised to lean body mass, and tumour to blood ratio correlated well with VT ($R^2 = 0.77$ and $R^2 = 0.87$, respectively, at 50-60 min p.i.), although a bias was observed at low VT. CONCLUSION: The 2T4k+VB model provided the best fit to the dynamic [18F]FAZA data. IDIF with venous blood samples can be used as input function. Further data are needed to validate the use of simplified methods.

[474]

TÍTULO / TITLE: - Post-operative rehabilitation for surgically resected non-small cell lung cancer patients: Serial pulmonary functional analysis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Rehabil Med. 2013 Jul 4. doi: 10.2340/16501977-1192.

●● Enlace al texto completo (gratis o de pago) [2340/16501977-1192](#)

AUTORES / AUTHORS: - Sterzi S; Cesario A; Cusumano G; Dall'armi V; Lapenna LM; Cardaci V; Novellis P; Lococo F; Corbo GM; Cafarotti S; Margaritora S; Granone P

INSTITUCIÓN / INSTITUTION: - Department of Physical Rehabilitation Medicine, Campus Bio-Medico, Rome, Italy.

RESUMEN / SUMMARY: - Introduction: Post-operative pulmonary rehabilitation in patients who have undergone surgery for lung cancer is a subject of open debate. Clinical practice in this setting is based on the results of observational trials, such as the one described here. Prospective randomized controlled trials have been registered and recruitment is ongoing. Methods: From 2005 to 2008, 110 patients with surgical non-small cell lung cancer were entered into a post-operative inpatient pulmonary rehabilitation programme for 3 weeks. All patients were evaluated for pulmonary function after surgery (time 0; T0) and at the end of pulmonary rehabilitation programme (time 1; T1). Statistical analysis focused on improvement in pulmonary function parameters and physical performance in the 6-min walking test (6MWT). Mixed models multiple linear regression was used to identify parameters related to the primary end-points of this research. Results: Patients' mean age was 70.1 years (standard deviation (SD) 8.5 years); male/female ratio 73/37. A total of 94 patients underwent lobectomy, 8 underwent pneumonectomy, and the remaining 8 underwent bilobectomy. Among the analysed parameters a significant improvement could be detected only with regards to the 6MWT (257.4 (SD 112.2) at T0 and 382.8 (SD 11.09) at T1). Conclusion: Post-operative pulmonary rehabilitation in patients with surgical non-small cell lung cancer is effective in terms of exercise tolerance.

[475]

TÍTULO / TITLE: - Lung flooding enables efficient lung sonography and tumour imaging in human ex vivo and porcine in vivo lung cancer model.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Med Res. 2013 Jul 10;18(1):23. doi: 10.1186/2047-783X-18-23.

●● Enlace al texto completo (gratis o de pago) [1186/2047-783X-18-23](#)

AUTORES / AUTHORS: - Lesser TG; Schubert H; Bischoff S; Wolfram F

INSTITUCIÓN / INSTITUTION: - Department of Thoracic and Vascular Surgery, SRH Wald-Klinikum Gera, Teaching Hospital of Friedrich-Schiller University of Jena, Strasse des Friedens 122, Gera D-07548, Germany.
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RESUMEN / SUMMARY: - BACKGROUND: Sonography has become the imaging technique of choice for guiding intraoperative interventions in abdominal surgery. Due to artefacts from residual air content, however, videothoracoscopic and open intraoperative ultrasound-guided thermoablation of lung malignancies are impossible. Lung flooding is a new method that allows complete ultrasound

imaging of lungs and their tumours. METHODS: Fourteen resected tumourous human lung lobes were examined transpleurally with B-mode ultrasound before (in atelectasis) and after lung flooding with isotonic saline solution. In two swine, the left lung was filled with 15 ml/kg isotonic saline solution through the left side of a double-lumen tube. Lung tumours were simulated by transthoracic ultrasound-guided injection of 5 ml of purified bovine serum albumin in glutaraldehyde, centrally into the left lower lung lobe. The rate of tumour detection, the severity of disability caused by residual gas, and sonomorphology of the lungs and tumours were assessed. RESULTS: The ex vivo tumour detection rate was 100% in flooded human lung lobes and 43% (6/14) in atelectatic lungs. In all cases of atelectasis, sonographic tumour imaging was impaired by residual gas. Tumours and atelectatic tissue were isoechoic. In 28% of flooded lungs, a little residual gas was observed that did not impair sonographic tumour imaging. In contrast to tumours, flooded lung tissue was hyperechoic, homogeneous, and of fine-grained structure. Because of the bronchial wall three-laminar structure, sonographic differentiation of vessels and bronchi was possible. In all cases, malignant tumours in the flooded lung appeared well-demarcated from the lung parenchyma. Adenocarcinoma, squamous, and large cell carcinomas were hypoechoic. Bronchioloalveolar cell carcinoma was slightly hyperechoic. Transpleural sonography identifies endobronchial tumour growth and bronchial wall destruction. With transthoracic sonography, the flooded animal lung can be completely examined in vivo. There is no residual gas, which interferes with ultrasound. Pulmonary vessels and bronchi are clearly differentiated. Simulated lung lesions can easily be detected inside the lung lobe. CONCLUSIONS: Lung flooding enables complete lung sonography and tumour detection. We have developed a novel method that efficiently uses ultrasound for guiding intraoperative interventions in open and endoscopic lung surgery.

[476]

TÍTULO / TITLE: - Comparison of Performance Status to Peak Oxygen Consumption in Operable Patients with Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Respirology. 2013 Jul 29. doi: 10.1111/resp.12162.

●● Enlace al texto completo (gratis o de pago) [1111/resp.12162](#)

AUTORES / AUTHORS: - Roman MA; Koelwyn GJ; Eves ND; Hornsby WE; Watson D; Herndon JE 2nd; Kohman L; Loewen G; Jones LW

INSTITUCIÓN / INSTITUTION: - Division of Respiratory Medicine, Rockyview Hospital, University of Calgary, Calgary, Alberta, Canada, T2V1R1.

RESUMEN / SUMMARY: - BACKGROUND AND OBJECTIVE: In this era of increasing options for treatment of “surgical” lung cancer patients, preoperative physiologic assessment of accurate patient selection is becoming more important. We compared the variability in an objective measure of

cardiorespiratory fitness (VO₂peak) across performance in operable non-small cell lung cancer (NSCLC) patients enrolled in the Cancer and Leukemia Group B trial. METHODS: Using a cross-sectional design, 392 NSCLC patients underwent an incremental cardiopulmonary cycling exercise test to symptom limitation with expired gas analysis to determine VO₂peak . Performance Status (PS) was assessed using the Eastern Cooperative Oncology Group (ECOG) tool. RESULTS: There was a significant decrease in VO₂peak across increasing ECOG categories (p<0.0001). However, there was a large range in VO₂peak for any given ECOG category with overlap between categories (ECOG 0: 5.0 - 31.5 ml.kg⁻¹ .min⁻¹ ; ECOG 1: 4.3 - 24.8 ml.kg⁻¹ .min⁻¹ ; ECOG 2: 8.9 - 21.9 ml.kg⁻¹ .min⁻¹ ; ECOG 3; 3.3 - 11.7 ml.kg⁻¹ .min⁻¹). CONCLUSIONS: PS scoring systems do not provide a sensitive measure of functional status. Objective measures, such as VO₂peak , may be a useful in the clinical management of oncology patients.

[477]

TÍTULO / TITLE: - Establishment of patient-derived non-small cell lung cancer xenograft models with genetic aberrations within EGFR, KRAS and FGFR1: useful tools for preclinical studies of targeted therapies.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Transl Med. 2013 Jul 10;11:168. doi: 10.1186/1479-5876-11-168.

●● Enlace al texto completo (gratis o de pago) [1186/1479-5876-11-168](#)

AUTORES / AUTHORS: - Zhang XC; Zhang J; Li M; Huang XS; Yang XN; Zhong WZ; Xie L; Zhang L; Zhou M; Gavine P; Su X; Zheng L; Zhu G; Zhan P; Ji Q; Wu YL

INSTITUCIÓN / INSTITUTION: - Medical Research Center of Guangdong General Hospital & Guangdong Academy of Medical Sciences, Guangdong Lung Cancer Institute Guangzhou 510080, PR China.

RESUMEN / SUMMARY: - BACKGROUND: Patient-derived tumor xenograft models have been established and increasingly used for preclinical studies of targeted therapies in recent years. However, patient-derived non-small cell lung cancer (NSCLC) xenograft mouse models are relatively few in number and are limited in their degree of genetic characterization and validation. In this study, we aimed to establish a variety of patient-derived NSCLC models and characterize these for common genetic aberrations to provide more informative models for preclinical drug efficacy testing. METHODS: NSCLC tissues from thirty-one patients were collected and implanted into immunodeficient mice. Established xenograft models were characterized for common genetic aberrations, including detection of gene mutations within EGFR and KRAS, and genetic amplification of FGFR1 and cMET. Finally, gefitinib anti-tumor efficacy was tested in these patient-derived NSCLC xenograft models. RESULTS: Ten passable patient-derived NSCLC xenograft models were established by

implantation of NSCLC specimens of thirty-one patients into immunodeficient mice. Genetic aberrations were detected in six of the models, including one model with an EGFR activating mutation (Exon19 Del), one model with KRAS mutation, one model with both KRAS mutation and cMET gene amplification, and three models with FGFR1 amplification. Anti-tumor efficacy studies using gefitinib demonstrated that the EGFR activating mutation model had superior sensitivity and that the KRAS mutation models were resistant to gefitinib. The range of gefitinib responses in the patient-derived NSCLC xenograft models were consistent with the results reported from clinical trials. Furthermore, we observed that patient-derived NSCLC models with FGFR1 gene amplification were insensitive to gefitinib treatment. CONCLUSIONS: Ten patient-derived NSCLC xenograft models were established containing a variety of genetic aberrations including EGFR activating mutation, KRAS mutation, and FGFR1 and cMET amplification. Gefitinib anti-tumor efficacy in these patient-derived NSCLC xenografts containing EGFR and KRAS mutation was consistent with the reported results from previous clinical trials. Thus, data from our panel of patient-derived NSCLC xenograft models confirms the utility of these models in furthering our understanding of this disease and aiding the development of personalized therapies for NSCLC patients.

[478]

TÍTULO / TITLE: - Predicting depression with temperament and character in lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cancer Care (Engl). 2013 Jun 4. doi: 10.1111/ecc.12080.

●● Enlace al texto completo (gratis o de pago) [1111/ecc.12080](#)

AUTORES / AUTHORS: - Aukst Margetic B; Kukulj S; Santic Z; Jaksic N; Jakovljevic M

INSTITUCIÓN / INSTITUTION: - Department of Psychiatry, University Hospital Center Zagreb, Zagreb, Croatia.

RESUMEN / SUMMARY: - Depression is highly prevalent in cancer patients. Variations in intensity and frequency of depression in cancer patients may be attributed, in part, to differences in personality dimensions. Our aim was to assess if dimensions of temperament and character could predict depression in lung cancer patients. Ninety newly diagnosed non-small cell lung cancer patients were assessed in the oncology unit with the Centre for Epidemiologic Studies Depression Scale (CES-D), pain subscale of the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ) C30 and the Temperament and Character Inventory (TCI). Fifty out of 90 patients (55.6%) fulfilled the cut-off criteria for depression on the CES-D scale. Logistic regression performed to assess if depression was predicted by personality dimensions, revealed dimension of

temperament Harm Avoidance and pain as significant predictors of depression. Depressive reactions are highly prevalent in lung cancer patients and related to patients' personality. These findings may be helpful in planning preventive, as well as psychoeducational and treatment programmes for newly diagnosed, and depression prone patients.

[479]

TÍTULO / TITLE: - Systemic inflammatory status at baseline predicts bevacizumab benefit in advanced non-small cell lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Biol Ther. 2013 Jun;14(6):469-75. doi: 10.4161/cbt.24425.

●● [Enlace al texto completo \(gratis o de pago\) 4161/cbt.24425](#)

AUTORES / AUTHORS: - Botta C; Barbieri V; Ciliberto D; Rossi A; Rocco D; Addeo R; Staropoli N; Pastina P; Marvaso G; Martellucci I; Guglielmo A; Pirtoli L; Sperlongano P; Gridelli C; Caraglia M; Tassone P; Tagliaferri P; Correale P

INSTITUCIÓN / INSTITUTION: - Medical Oncology Unit, Campus Salvatore Venuta, Department of Experimental and Clinical Medicine, Magna Graecia University and Tommaso Campanella Cancer Center, Catanzaro, Italy.

RESUMEN / SUMMARY: - Bevacizumab is a humanized anti-VEGF monoclonal antibody able to produce clinical benefit in advanced non-squamous non-small-cell lung cancer (NSCLC) patients when combined to chemotherapy. At present, while there is a rising attention to bevacizumab-related adverse events and costs, no clinical or biological markers have been identified and validated for baseline patient selection. Preclinical findings suggest an important role for myeloid-derived inflammatory cells, such as neutrophils and monocytes, in the development of VEGF-independent angiogenesis. We conducted a retrospective analysis to investigate the role of peripheral blood cells count and of an inflammatory index, the neutrophil-to-lymphocyte ratio (NLR), as predictors of clinical outcome in NSCLC patients treated with bevacizumab plus chemotherapy. One hundred and twelve NSCLC patients treated with chemotherapy +/- bevacizumab were retrospectively evaluated for the predictive value of clinical or laboratory parameters correlated with inflammatory status. Univariate analysis revealed that a high number of circulating neutrophils and monocytes as well as a high NLR were associated with shorter progression-free survival (PFS) and overall survival (OS) in bevacizumab-treated patients only. We have thus developed a model based on the absence or the presence of at least one of the above-mentioned inflammatory parameters. We found that the absence of all variables strongly correlated with longer PFS and OS (9.0 vs. 7.0 mo, HR: 0.39, $p = 0.002$; and 20.0 vs. 12.0 mo, HR: 0.29, $p < 0.001$ respectively) only in NSCLC patients treated with bevacizumab plus chemotherapy. Our results suggest that a baseline systemic

inflammatory status is marker of resistance to bevacizumab treatment in NSCLC patients.

[480]

TÍTULO / TITLE: - Lyn, a Src family kinase, regulates activation of epidermal growth factor receptors in lung adenocarcinoma cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Cancer. 2013 Jul 16;12:76. doi: 10.1186/1476-4598-12-76.

●● Enlace al texto completo (gratis o de pago) [1186/1476-4598-12-76](#)

AUTORES / AUTHORS: - Sutton P; Borgia JA; Bonomi P; Plate JM

INSTITUCIÓN / INSTITUTION: - Division of Oncology, Department of Medicine, Hematology and Cell Therapy, Rush University Medical Center, Chicago, IL 60612, USA. jmdplate27@gmail.com.

RESUMEN / SUMMARY: - BACKGROUND: Activation of receptors for growth factors on lung epithelial cells is essential for transformation into tumor cells, supporting their viability and proliferation. In most lung cancer patients, EGFR is constitutively activated without evidence of mutation. Defining mechanisms for constitutive activation of EGFR could elucidate additional targets for therapy of lung cancers. METHODS: The approach was to identify lung cancer cell lines with constitutively activated EGFR and use systematic selection of inhibitors to evaluate their effects on specific EGFR phosphorylations and downstream signaling pathways. Interactions between receptors, kinases, and scaffolding proteins were investigated by co-immunoprecipitation plus Western blotting. RESULTS: The results revealed a dependence on Src family of tyrosine kinases for downstream signaling and cell growth. Lyn, a Src family kinase functional in normal and malignant B-lymphocytes, was a defining signal transducer required for EGFR signaling in Calu3 cell line. Src family kinase activation in turn, was dependent on PKC δ . Lyn and PKC exist in membrane complexes of RACK1 and in association with EGFR which pairs with other receptor partners. Silencing of Lyn expression with interfering siRNA decreased EGFR activation and cell viability. CONCLUSIONS: The importance of Src family kinases and PKC δ in the initiation of the EGFR signaling pathway in lung tumor cells was demonstrated. We conclude that phosphorylation of EGFR is mediated through PKC δ regulation of Lyn activation, and occurs in association with RACK1 and Cbp/PAG proteins. We suggest that protein complexes in cell membranes, including lipid rafts, may serve as novel targets for combination therapies with EGFR and Src Family Kinase inhibitors in lung cancer.

[481]

TÍTULO / TITLE: - Revisiting Clinical Trials Using EGFR Inhibitor-Based Regimens in Patients with Advanced Non-Small Cell Lung Cancer: A Retrospective Analysis of an MD Anderson Cancer Center Phase I Population.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncotarget. 2013 May;4(5):772-84.

AUTORES / AUTHORS: - Wheler J; Falchook G; Tsimberidou AM; Hong D; Naing A; Piha-Paul S; Chen SS; Heymach J; Fu S; Stephen B; Fok JY; Janku F; Kurzrock R

INSTITUCIÓN / INSTITUTION: - Department of Investigational Cancer Therapeutics - a Phase I Clinical Trials Program, The University of Texas MD Anderson Cancer Center, Texas.

RESUMEN / SUMMARY: - Purpose: Single-agent EGFR inhibitor therapy is effective mainly in patients with lung cancer and EGFR mutations. Treating patients who develop resistance, or who are insensitive from the outset, often because of resistant mutations, other aberrations or the lack of an EGFR mutation, probably requires rational combinations. We therefore investigated the outcome of EGFR inhibitor-based combination regimens in patients with heavily-pretreated non-small cell lung cancer (NSCLC) referred to a Phase I Clinic. Methods: We reviewed the electronic records of patients with NSCLC treated with an EGFR inhibitor-based combination regimen: erlotinib and cetuximab; erlotinib, cetuximab and bevacizumab; erlotinib and dasatinib; erlotinib and bortezomib; or cetuximab and sirolimus. Results: EGFR mutations were detected in 16% of patients (21/131). EGFR inhibitor-based combination regimens were administered to 15 patients with EGFR-mutant NSCLC and 24 with EGFR wild-type disease. Stable disease (SD) \geq 6 months/partial remission (PR) was attained in 20% of EGFR-mutant patients (3/15; two with sensitive mutations and secondary resistance to prior erlotinib, and one with a resistant mutation), as well as 26% of evaluable patients (5/19) with wild-type disease. One of three evaluable patients with squamous cell histology achieved SD for 26.5 months (EGFR wild-type, TP53-mutant, regimen=erlotinib, cetuximab and bevacizumab). Conclusions: Eight of 34 evaluable patients (24%) with advanced, refractory NSCLC evaluable for response achieved SD \geq 6 months/PR (PR=3; SD \geq 6 months=5) on EGFR inhibitor-based combination regimens (erlotinib, cetuximab; erlotinib, cetuximab and bevacizumab; and, erlotinib, bortezomib), including patients with secondary resistance to single-agent EGFR inhibitors, resistant mutations, wild-type disease, and, squamous histology.

[482]

TÍTULO / TITLE: - A novel protein from Eupolyphaga sinensis inhibits adhesion, migration, and invasion of human lung cancer A549 cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biochem Cell Biol. 2013 Aug;91(4):244-51. doi: 10.1139/bcb-2013-0002. Epub 2013 Mar 28.

●● Enlace al texto completo (gratis o de pago) [1139/bcb-2013-0002](https://doi.org/10.1139/bcb-2013-0002)

AUTORES / AUTHORS: - Wang FX; Wu N; Wei JT; Liu J; Zhao J; Ji AG; Lin XK
INSTITUCIÓN / INSTITUTION: - a School of Pharmaceutical Sciences, Shandong University, Jinan, Shandong 250012, China.

RESUMEN / SUMMARY: - Eupolyphaga sinensis Walker is an important insect used in Chinese traditional medicine. In this study, we purified a 72-kDa anticancer protein, designated as EPS72, from this species using ammonium sulfate precipitation, ultrafiltration, CM Sepharose Fast Flow cation exchange, Q Sepharose High Performance (HP) anion exchange, Butyl Sepharose HP hydrophobic chromatography, and Superdex 75 gel filtration chromatographic techniques. EPS72 exhibited a potent anticancer activity against the human lung cancer A549 cell line (IC₅₀, 18.76 µg/mL). Further study showed that EPS72 could induce A549 cell detachment and apoptosis, inhibit cell adhesion to fibronectin and collagen IV, and restrain cell migration and invasion. Moreover, EPS72 significantly decreased the expression of beta1-integrin. This study suggests that EPS72 could potentially be developed as a novel anticancer therapeutic agent due to its possible antimetastatic activity.

[483]

TÍTULO / TITLE: - HIV-associated lung cancer: Survival in an unselected cohort.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Scand J Infect Dis. 2013 Jul 23.

●● Enlace al texto completo (gratis o de pago)

[3109/00365548.2013.810813](https://doi.org/10.3109/00365548.2013.810813)

AUTORES / AUTHORS: - Hoffmann C; Kohrs F; Sabranski M; Wolf E; Jaeger H; Wyen C; Siehl J; Baumgarten A; Hensel M; Jessen A; Schaaf B; Vogel M; Bogner J; Horst HA; Stephan C

INSTITUCIÓN / INSTITUTION: - From the Infektionsmedizinisches Centrum Stadtmitte, Hamburg.

RESUMEN / SUMMARY: - Background: Lung cancer is one of the most common non-AIDS-defining malignancies in HIV-infected patients. However, data on clinical outcome and prognostic factors are scarce. Methods: This was a national German multicentre, retrospective cohort analysis of all cases of lung cancer seen in HIV-infected individuals from 2000 through 2010. Survival was analyzed with respect to the use of antiretroviral therapy (ART), specific lung cancer therapies, and other potential prognostic factors. Results: A total of 72 patients (mean age 55.5 y, CD4 T-cells 383/µl) were evaluated in this analysis. At time of lung cancer diagnosis, 86% were on ART. Of these, 79% had undetectable HIV-1 RNA (< 50 copies/ml) for a mean duration of 4.0 y. All but 1 patient were current or former heavy smokers (mean 42 package y). The median estimated overall survival was 1.08 y, with a 2-y overall survival of 24%. The prognosis did not improve during the observation time. A limited lung cancer stage of I-IIIa was associated with better overall survival when

compared with the advanced stages IIIb/IV ($p = 0.0003$). Other factors predictive of improved overall survival were better performance status, CD4 T-cells $> 200/\mu\text{l}$, and a non-intravenous drug use transmission risk for HIV. Conclusions: Currently, most cases of lung cancer occur in the setting of limited immune deficiency and a long-lasting viral suppression. As in HIV-negative cases, the clinical stage of lung cancer is highly predictive of survival, and long-term overall survival can only be achieved at the limited stages. The still high mortality underscores the importance of smoking cessation strategies in HIV-infected patients.

[484]

TÍTULO / TITLE: - (S)-Goniothalamine induces DNA damage, apoptosis, and decrease in BIRC5 messenger RNA levels in NCI-H460 cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Hum Exp Toxicol. 2013 Jun 7.

●● Enlace al texto completo (gratis o de pago)

[1177/0960327113491506](#)

AUTORES / AUTHORS: - Semprebon S; de Fatima A; Lepri S; Sartori D; Ribeiro L; Mantovani M

INSTITUCIÓN / INSTITUTION: - 1Departamento de Biología Geral, Universidade Estadual de Londrina, Londrina, Parana, Brazil.

RESUMEN / SUMMARY: - (S)-Goniothalamine (S-GNT) is a secondary metabolite isolated from the plants of the genus Goniothalamus. This molecule has attracted the attention of researchers because of its selective cytotoxicity against tumor cells and its ability to induce apoptosis. (S)-Goniothalamine (S-GNT) is a synthetic enantiomer of R-GNT, and its mechanism of action is largely unknown. In this study, we investigated the activity of S-GNT in a human non-small cell lung cancer NCI-H460 cells. We observed that the cells exposed to this compound exhibited cytotoxicity in a concentration-dependent manner. Based on the data obtained through the assessment of apoptosis induction in situ and the comet assay, we suggest that this cytotoxicity occurs due to the potential ability of this molecule to induce DNA damage with the consequent induction of cell death via apoptosis. A significant reduction in the messenger RNA levels of baculoviral inhibitor of apoptosis repeat-containing 5 (BIRC5) gene that encodes the survivin protein was found. This novel finding may explain the inhibition of cell proliferation and induction of apoptosis in tumor cells caused by this compound.

[485]

TÍTULO / TITLE: - Molecular diagnostic algorithm for epidermal growth factor receptor mutation detection in Asian lung adenocarcinomas: Comprehensive

analyses of 445 Taiwanese cases with immunohistochemistry, PCR-direct sequencing and Scorpion/ARMS methods.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Respirology. 2013 Jun 25. doi: 10.1111/resp.12148.

●● Enlace al texto completo (gratis o de pago) [1111/resp.12148](#)

AUTORES / AUTHORS: - Ho HL; Chang FP; Ma HH; Liao LR; Chuang YT; Chang-Chien YC; Lin KY; Chou TY

INSTITUCIÓN / INSTITUTION: - Division of Molecular Pathology, Department of Pathology and Laboratory Medicine, Taipei Veterans General Hospital, Taipei, Taiwan.

RESUMEN / SUMMARY: - BACKGROUND AND OBJECTIVE: Therapeutic responses of lung adenocarcinoma patients to tyrosine kinase inhibitors (TKIs) of epidermal growth factor receptor (EGFR) are closely associated with activating mutations within the EGFR tyrosine kinase domain. Screening activating EGFR mutations prior to selection for therapeutic strategy has been considered extremely valuable for clinical management of lung adenocarcinoma patients in Asian countries including Taiwan, where the EGFR mutation rate is higher than in the rest of the world. Currently there is no consensus on the method of choice to assess EGFR mutations in tumor tissue. METHODS: We enrolled 445 lung adenocarcinoma patients for analysis of tumor EGFR mutations using PCR-direct sequencing, Scorpion/Arms technology and immunohistochemistry with mutation-specific antibodies. RESULTS: 245 patients (245/445; 55%) were found to harbor activating EGFR mutations using PCR-direct sequencing method, with a majority of patients (233/245; 95%) carrying exon 19 deletion or p.L858R point mutations. One hundred and three of 200 cases negative for EGFR mutations from PCR-direct sequencing were further analyzed using Scorpion/Arms technology. Up to 30% of the PCR-direct sequencing negative cases turned out to be positive in the Scorpion/Arms EGFR mutation tests. For immunohistochemistry analysis of EGFR mutations, the p.E746_A750del specific antibody showed a sensitivity of 57% and a specificity of 100% for exon 19 deletions while the p.L858R point mutation specific antibody showed a sensitivity of 68% and a specificity of 95%. CONCLUSIONS: Based on this study, we proposed an algorithm for comprehensive and efficient testing of EGFR mutations on lung adenocarcinoma patients in Asia.

[486]

TÍTULO / TITLE: - Treatment modality selection and prognosis of early stage small cell lung cancer: retrospective analysis from a single cancer institute.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cancer Care (Engl). 2013 Jun 13. doi: 10.1111/ecc.12082.

●● Enlace al texto completo (gratis o de pago) [1111/ecc.12082](#)

AUTORES / AUTHORS: - Zhu H; Zhou Z; Xue Q; Zhang X; He J; Wang L
INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Cancer Institute & Hospital, Chinese Academy of Medical Science (CAMS) & Peking Union Medical College, Beijing, China.
RESUMEN / SUMMARY: - We evaluated the role of surgery followed by either chemotherapy (ChT) alone or chemotherapy and thoracic radiotherapy (ChT/TRT) versus sequential ChT/TRT in patients with clinical stage I or stage II small cell lung cancer (SCLC). Ninety-six patients received surgery (complete resection) followed by either ChT alone or ChT/TRT (Group I), while 49 patients were treated exclusively with sequential ChT/TRT (Group II). The ChT regimens consisted of either carboplatin/etoposide or cisplatin/etoposide. The total TRT dose was 50-60 Gy. For the whole group (n = 145), the median survival time was 54 months, and the 5-year overall survival (OS) rate was 48%. The corresponding figures for Group I were 91 months and 57%, respectively, and for Group II, they were 34.6 months and 31.4% respectively (P = 0.004). Multivariate analysis revealed that a Karnofsky Performance Status score ≥ 80 [hazard ratio (HR), 0.281; P = 0.015] and the treatment modality including surgery (HR, 0.503; P = 0.004) were independent favourable prognostic factors for OS.

[487]

TÍTULO / TITLE: - Should we screen for lung cancer in Australia?
RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)
REVISTA / JOURNAL: - Med J Aust. 2013;199(2):82-3.
●● Enlace al texto completo (gratis o de pago) [5694/mja13.10439](#) [pii]
AUTORES / AUTHORS: - Hew M; Stirling RG; Abramson MJ
INSTITUCIÓN / INSTITUTION: - Allergy, Asthma and Clinical Immunology Service, The Alfred, Melbourne, VIC, Australia. m.hew@alfred.org.au.

[488]

TÍTULO / TITLE: - A Rare Population of CD24(+)ITGB4(+)Notch(hi) Cells Drives Tumor Propagation in NSCLC and Requires Notch3 for Self-Renewal.
RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)
REVISTA / JOURNAL: - Cancer Cell. 2013 Jul 8;24(1):59-74. doi: 10.1016/j.ccr.2013.05.021.
●● Enlace al texto completo (gratis o de pago) [1016/j.ccr.2013.05.021](#)
AUTORES / AUTHORS: - Zheng Y; de la Cruz CC; Sayles LC; Alleyne-Chin C; Vaka D; Knaak TD; Bigos M; Xu Y; Hoang CD; Shrager JB; Fehling HJ; French D; Forrest W; Jiang Z; Carano RA; Barck KH; Jackson EL; Sweet-Cordero EA
INSTITUCIÓN / INSTITUTION: - Cancer Biology Program, Department of Pediatrics, Stanford University School of Medicine, Stanford, CA 94305, USA.

RESUMEN / SUMMARY: - Sustained tumor progression has been attributed to a distinct population of tumor-propagating cells (TPCs). To identify TPCs relevant to lung cancer pathogenesis, we investigated functional heterogeneity in tumor cells isolated from Kras-driven mouse models of non-small-cell lung cancer (NSCLC). CD24(+)ITGB4(+)Notch(hi) cells are capable of propagating tumor growth in both a clonogenic and an orthotopic serial transplantation assay. While all four Notch receptors mark TPCs, Notch3 plays a nonredundant role in tumor cell propagation in two mouse models and in human NSCLC. The TPC population is enriched after chemotherapy, and the gene signature of mouse TPCs correlates with poor prognosis in human NSCLC. The role of Notch3 in tumor propagation may provide a therapeutic target for NSCLC.

[489]

TÍTULO / TITLE: - A Very Elderly Lung Cancer Patient: Case Report of a Long Disease Free Survival.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Thorac Cardiovasc Surg. 2013 Jun 4.

AUTORES / AUTHORS: - Testori A; Meroni S; Cariboni U; Errico V; Voulaz E; Infante VM; Alloisio M

INSTITUCIÓN / INSTITUTION: - Unita Operativa di Chirurgia Toracica e Generale, Istituto Clinico Humanitas, Milano, Italy.

RESUMEN / SUMMARY: - Despite the fact that non-small-cell lung cancer (NSCLC) is very common in the older population, these patients are frequently underrepresented in clinical and surgical trials and thus it is difficult to reach evidence-based recommendations for this special population. We present a case of a surgical treatment of asymptomatic lung cancer in a very elderly patient. The patient had no recurrence for 4 years after a complete resection.

[490]

TÍTULO / TITLE: - BCL11A overexpression predicts survival and relapse in non-small cell lung cancer and is modulated by microRNA-30^a and gene amplification.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Cancer. 2013 Jun 12;12:61. doi: 10.1186/1476-4598-12-61.

●● [Enlace al texto completo \(gratis o de pago\) 1186/1476-4598-12-61](#)

AUTORES / AUTHORS: - Jiang BY; Zhang XC; Su J; Meng W; Yang XN; Yang JJ; Zhou Q; Chen ZY; Chen ZH; Xie Z; Chen SL; Wu YL

INSTITUCIÓN / INSTITUTION: - Guangdong Lung Cancer Institute, 106 Zhongshan Er Rd, Guangzhou, 510080, China.

RESUMEN / SUMMARY: - BACKGROUND: Aberrant activation of the proto-oncogene B-cell lymphoma/leukemia 11^a (BCL11A) has been implicated in the

pathogenesis of leukemia and lymphoma. However, the clinical significance of BCL11A in non-small cell lung cancer (NSCLC) remains unknown. RESULTS: We examined BCL11A expression at the protein and mRNA levels in a cohort (n=114) of NSCLC patients and assessed the relationship between BCL11A expression and clinicopathological parameters. Data from array-based Comparative Genomic Hybridization (aCGH) and microRNA transfection experiments were integrated to explore the potential mechanisms of abnormal BCL11A activation in NSCLC. Compared to adjacent non-cancerous lung tissues, BCL11A expression levels were specifically upregulated in NSCLC tissues at both the mRNA (t=9.81, P<0.001) and protein levels. BCL11A protein levels were higher in patients with squamous histology (chi2=15.81, P=0.001), smokers (chi2=8.92, P=0.004), patients with no lymph node involvement (chi2=5.14, P=0.029), and patients with early stage disease (chi2=3.91, P=0.048). A multivariate analysis demonstrated that in early stage NSCLC (IA-IIB), BCL11A was not only an independent prognostic factor for disease-free survival (hazards ratio [HR] 0.24, 95% confidence interval [CI] 0.12-0.50, P<0.001), but also for overall survival (HR=0.23, 95% CI 0.09-0.61, P=0.003). The average BCL11A expression level was much higher in SCC samples with amplifications than in those without amplifications (t=3.30, P=0.023). Assessing functionality via an in vitro luciferase reporter system and western blotting, we found that the BCL11A protein was a target of miR-30^a. CONCLUSIONS: Our results demonstrated that proto-oncogene BCL11A activation induced by miR-30^a and gene amplification may be a potential diagnostic and prognostic biomarker for effective management of this disease.

[491]

TÍTULO / TITLE: - Transglutaminase 2 expression predicts progression free survival in non-small cell lung cancer patients treated with epidermal growth factor receptor tyrosine kinase inhibitor.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Korean Med Sci. 2013 Jul;28(7):1005-14. doi: 10.3346/jkms.2013.28.7.1005. Epub 2013 Jul 3.

●● Enlace al texto completo (gratis o de pago)

[3346/jkms.2013.28.7.1005](#)

AUTORES / AUTHORS: - Jeong JH; Cho BC; Shim HS; Kim HR; Lim SM; Kim SK; Chung KY; Islam SM; Song JJ; Kim SY; Kim JH

INSTITUCIÓN / INSTITUTION: - Yonsei University Graduate School of Medicine, Yonsei University College of Medicine, Seoul, Korea.

RESUMEN / SUMMARY: - Transglutaminase 2 (TG2), a cross-linking enzyme, is involved in drug resistance and in the constitutive activation of nuclear factor kappa B (NF-kappaB). We investigated the association of non-small cell lung cancer (NSCLC) treatment efficacy with TG2 and NF-kappaB expression in 120 patients: 102 with adenocarcinoma and 18 with other histologic types. All

patients underwent surgery; 88 received adjuvant chemotherapy, with 28 receiving platinum-based doublet chemotherapy as first-line treatment and 29 receiving epidermal growth factor receptor (EGFR)-tyrosine kinase inhibitor (TKI) therapy. Patients' TG2 and NF-kappaB expression values were calculated semiquantitatively. The median TG2 value was 50 (range, 0-300) and the median NF-kappaB value was 20 (range, 0-240). Disease-free survival did not differ between the low- and high-TG2 groups. Among patients who received palliative platinum-based doublet chemotherapy, progression free survival (PFS) was longer in the low-TG2 group than in the high-TG2 group (11.0 vs. 7.0 months; P=0.330). Among those who received EGFR-TKI therapy, PFS was also longer in the low-TG2 group than in the high-TG 2 group (11.0 vs. 2.0 months; P=0.013). Similarly, in EGFR wild-type patients treated with EGFR-TKI, PFS was longer in patients with low TG2 expression (9.0 vs. 2.0 months; P=0.013). TG2 expression levels can predict PFS in patients with NSCLC treated with EGFR-TKI.

[492]

TÍTULO / TITLE: - Epigenetic therapy in non-small-cell lung cancer: targeting DNA methyltransferases and histone deacetylases.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Expert Opin Biol Ther. 2013 Jul 17.

●● Enlace al texto completo (gratis o de pago)

[1517/14712598.2013.819337](#)

AUTORES / AUTHORS: - Vendetti FP; Rudin CM

INSTITUCIÓN / INSTITUTION: - Johns Hopkins University, The Sidney Kimmel Comprehensive Cancer Center, David H. Koch Cancer Research Building 2, Room 562, 1550 Orleans Street, Baltimore, MD 21231, USA.

RESUMEN / SUMMARY: - Introduction: Epigenetics refers to heritable modifications of DNA and associated chromatin components that influence gene expression without altering DNA coding sequence. Epigenetic dysregulation is a central contributor to oncogenesis and is increasingly a focus of interest in cancer therapeutic research. Two key levels of aberrant epigenetic control are DNA methylation and histone acetylation. Primary regulators of these epigenetic changes include DNA methyltransferases (DNMTs) and histone deacetylases (HDACs). Areas covered: This review focuses on epigenetic changes in non-small-cell lung cancer and recent preclinical and clinical studies targeting these changes. DNMT inhibitors were previously explored at or near maximally tolerated doses, levels at which these agents are cytotoxic but have suboptimal effects on DNA methylation. Use of these inhibitors at substantially lower doses, in combination with HDAC inhibitors, can promote re-expression of silenced tumor suppressor genes, can result in major clinical responses and may alter tumor responsiveness to subsequent cytotoxic therapies. Expert opinion: Combinatorial epigenetic therapy has demonstrated

encouraging clinical activity, but many relevant questions remain. Global strategies influencing the epigenome may have both positive and potential negative long-term effects on cancer progression. Further clinical investigation of this approach, including exploratory studies to define predictive biomarkers, is warranted.

[493]

TÍTULO / TITLE: - The role of SHP-1 promoter 2 hypermethylation detection of lymph node micrometastasis in resectable stage I non-small cell lung cancer as a prognostic marker of disease recurrence.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Clin Oncol. 2013 Jul 4.

●● Enlace al texto completo (gratis o de pago) [1007/s10147-013-0590-](http://1007/s10147-013-0590-1)

[1](#)

AUTORES / AUTHORS: - Chanida V; Poonchavist C; Virote S; Apiwat M

INSTITUCIÓN / INSTITUTION: - Division of Medical Oncology, Department of Medicine, Faculty of Medicine, Chulalongkorn University and The King Chulalongkorn Memorial Hospital, Bangkok, 10330, Thailand, Chanida.Vi@chula.ac.th.

RESUMEN / SUMMARY: - BACKGROUND: Despite adequate surgical management of stage I non-small cell lung cancer (NSCLC), many patients still relapse. Nodal micrometastases which cannot be detected by the standard hematoxylin and eosin (H&E) method are the postulated mechanism. We conducted a study of an epithelial-specific methylation marker, SHP-1 promoter 2 (SHP1P2) methylation, as a potential molecular marker to determine its association with a high risk of disease relapse. MATERIAL AND METHOD: Lymph nodes from stage II-IIIa NSCLC patients were examined to explore the potential role of SHP1P2 methylation in detecting metastatic carcinoma according to H&E staining. Further study was done in lymph nodes from stage I NSCLC patients who underwent curative resection and follow-up at The King Chulalongkorn Memorial Hospital, Bangkok, Thailand. No adjuvant treatment was given, according to the standard treatment in that stage. Patients who relapsed within 40 months after resection were defined as high risk. RESULTS: The nodal SHP1P2 methylation level from stage II-IIIa NSCLC patients was significantly higher in the metastasis group, median 674 [0-3536] ng, compared with the no metastasis group, median 230 [0-3832] ng ($p = 0.004$). One-hundred and ninety-eight lymph nodes from stage I NSCLC patients were analyzed, including hilar and mediastinal nodes. With a median follow-up period of 65 [46-109] months, high SHP1P2 methylation levels of more than 140 ng in hilar lymph nodes were associated with early relapse, with sensitivity and specificity of 85 and 54 %, respectively (hazard ratio 5.3; 95 % confidence interval 5.0-5.6; $p < 0.0001$). CONCLUSION: A high level of SHP1P2

methylation of hilar lymph nodes from stage I NSCLC patients is associated with early relapse of disease.

[494]

TÍTULO / TITLE: - A CDK4/6 inhibitor enhances cytotoxicity of paclitaxel in lung adenocarcinoma cells harboring mutant KRAS as well as wild-type KRAS.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Biol Ther. 2013 Jul 1;14(7):597-605. doi: 10.4161/cbt.24592. Epub 2013 May 10.

●● Enlace al texto completo (gratis o de pago) [4161/cbt.24592](#)

AUTORES / AUTHORS: - Zhang XH; Cheng Y; Shin JY; Kim JO; Oh JE; Kang JH

INSTITUCIÓN / INSTITUTION: - The Catholic University of Korea; Seoul, Korea; Jilin Province Tumour Hospital; Changchun, China.

RESUMEN / SUMMARY: - The KRAS gain-of-function mutation confers intrinsic resistance to targeted anti-cancer drugs and cytotoxic chemotherapeutic agents, ultimately leading to treatment failure. KRAS mutation frequency in lung adenocarcinoma is ~15-30%. Novel therapeutic strategies should be developed to improve clinical outcomes in these cases. Deregulation of the p16/cyclin-dependent kinase (CDK) 4/retinoblastoma (Rb) pathway is frequently observed in various cancers and it represents an attractive therapeutic target. We compared the anti-tumor efficacy of genetically knocked-down CDK4 and a pharmacological inhibitor of CDK4/6, CINK4, in KRAS mutation-positive lung adenocarcinoma cells. We also investigated changes in anti-proliferative activity and downstream molecules with these treatments in combination with paclitaxel. CDK4 short interfering RNA (siRNA) significantly increased paclitaxel sensitivity in KRAS mutation-positive H23 cells. CINK4 demonstrated concentration- and time-dependent anti-proliferative activity in 5 adenocarcinoma lines. CINK4 induced G1 arrest by downregulating the p16/cyclin D1/Rb pathway, resulting in apoptotic induction via increased expression of cleaved caspase3, cleaved PARP and Bax. Combined CINK4 and paclitaxel produced synergistic anti-proliferative activity and increased apoptosis through reduced cyclin D1 and Bcl-2 in KRAS mutation-positive cancer cells. These data suggest CDK4 is a promising target for development of anti-cancer drugs and CINK4 combined with paclitaxel may be an effective therapeutic strategy for enhancing anti-tumor efficacy in KRAS mutation-positive lung adenocarcinoma.

[495]

TÍTULO / TITLE: - Targeting AKT with the allosteric AKT inhibitor MK-2206 in non-small cell lung cancer cells with acquired resistance to cetuximab.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Biol Ther. 2013 Jun;14(6):481-91. doi: 10.4161/cbt.24342.

●● Enlace al texto completo (gratis o de pago) [4161/cbt.24342](https://doi.org/10.4161/cbt.24342)

AUTORES / AUTHORS: - Iida M; Brand TM; Campbell DA; Starr MM; Luthar N; Traynor AM; Wheeler DL

INSTITUCIÓN / INSTITUTION: - Department of Human Oncology, University of Wisconsin School of Medicine and Public Health, Wisconsin Institute for Medical Research, Madison, WI, USA.

RESUMEN / SUMMARY: - The epidermal growth factor receptor (EGFR) is a central regulator of tumor progression in human cancers. Cetuximab is an anti-EGFR monoclonal antibody that has been approved for use in oncology. Despite clinical success the majority of patients do not respond to cetuximab and those who initially respond frequently acquire resistance. To understand how tumor cells acquire resistance to cetuximab we developed a model of resistance using the non-small cell lung cancer line NCI-H226. We found that cetuximab-resistant (Ctx[®]) clones manifested strong activation of EGFR, PI3K/AKT and MAPK. To investigate the role of AKT signaling in cetuximab resistance we analyzed the activation of the AKT pathway effector molecules using a human AKT phospho-antibody array. Strong activation was observed in Ctx[®] clones for several key AKT substrates including c-jun, GSK3beta, eIF4E, rpS6, IKKalpha, IRS-1 and Raf1. Inhibition of AKT signaling by siAKT1/2 or by the allosteric AKT inhibitor MK-2206 resulted in robust inhibition of cell proliferation in all Ctx[®] clones. Moreover, the combinational treatment of cetuximab and MK-2206 resulted in further decreases in proliferation than either drug alone. This combinatorial treatment resulted in decreased activity of both AKT and MAPK thus highlighting the importance of simultaneous pathway inhibition to maximally affect the growth of Ctx[®] cells. Collectively, our findings demonstrate that AKT activation is an important pathway in acquired resistance to cetuximab and suggests that combinatorial therapy directed at both the AKT and EGFR/MAPK pathways may be beneficial in this setting.

[496]

TÍTULO / TITLE: - The Role of Consolidation Treatment in Locally Advanced Unresectable NSCLC.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Curr Oncol Rep. 2013 Aug;15(4):424-32. doi: 10.1007/s11912-013-0330-8.

●● Enlace al texto completo (gratis o de pago) [1007/s11912-013-0330-](https://doi.org/10.1007/s11912-013-0330-8)

[8](#)

AUTORES / AUTHORS: - Fakhrejehani F; Hashemi Sadraei N; Mekhail T

INSTITUCIÓN / INSTITUTION: - Internal Medicine Department, Saint Elizabeth Health Center, 1044 Belmont Ave, Youngstown, OH, 44501, USA.

RESUMEN / SUMMARY: - Concurrent chemotherapy and radiation therapy remains the standard-of-care treatment in patients with unresectable stage III non-small-cell lung cancer. Most regimens include low doses of radiosensitizing agents. Because of concern for the presence of micrometastatic disease and the high rate of systemic failure, many trials have addressed the role of additional consolidation chemotherapy. Only a few of these studies have been performed in a randomized setting on a large number of patients, and the rest are smaller phase I and phase II trials that explore the safety and efficacy of different chemotherapy regimens. More recently, targeted agents have also been evaluated in such regimens, although molecular and histologic markers have not been fully incorporated in these studies. In this review, we discuss these trials and compare the different sequences and regimens of systemic doses of chemotherapy when delivered in addition to concurrent chemotherapy and radiation therapy.

[497]

TÍTULO / TITLE: - Targeted therapy for non-small-cell lung cancer: past, present and future.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Expert Rev Anticancer Ther. 2013 Jun;13(6):745-58. doi: 10.1586/era.13.47.

●● Enlace al texto completo (gratis o de pago) [1586/era.13.47](#)

AUTORES / AUTHORS: - Forde PM; Ettinger DS

INSTITUCIÓN / INSTITUTION: - Fellow, Lung Cancer Research Program, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD 21287, USA.

RESUMEN / SUMMARY: - Therapy for advanced non-small-cell lung cancer has developed significantly with new awareness of histologic subtype as an important factor in guiding treatment and the development of targeted agents for molecular subgroups harboring critical mutations that spur on cancer growth. In this comprehensive review, we look back at developments in targeted therapy for advanced non-small-cell lung cancer, reviewing in detail efforts, both successful and in some cases less so, to target EGFR, VEGF and ALK. This review provides an overview of where the field stands at present and the areas we feel are most likely to provide challenges and potential successes in the next 5 years including immune checkpoint inhibition, epigenetic therapy and driver mutation targeting.

[498]

TÍTULO / TITLE: - Molecular diagnostics of pulmonary metastasis from cervical cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pathologica. 2013 Feb;105(1):21-3.

AUTORES / AUTHORS: - Fodero C; Cavazza A; Bio R; Bulgarelli L; Campioli L; Rubino T; Semeraro V; Prandi S

INSTITUCIÓN / INSTITUTION: - Cervical Cancer Screening Unit, Department of Oncology, Arcispedale S.Maria Nuova IRCCS, Reggio Emilia, Italy.

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RESUMEN / SUMMARY: - High-risk human papillomaviruses (HPV) are largely implicated in the carcinogenesis of cervical carcinomas. Their role in lung carcinomas, however, is still unclear. We describe the case of 44-year-old female chain-smoker with previous HPV-related cervical cancer and a new distant tumour in the lung after many years. The histologic distinction between metastatic squamous cell carcinoma of the cervix and another primary squamous cell tumour of the lung can be difficult and has important clinical implications. The aim of our study was to investigate whether HPV was present in both the patient's cervical cancer and her subsequent primary lung cancer in order to appropriately plan therapy. We tested both the paraffin-embedded tissue of the cervical cancer and the lung cancer for HPV DNA using the Qiagen HPV Sign Genotyping Test, which detected HPV16-DNA in both tumours. The Qiagen HPV Sign Genotyping Test is a reliable method to detect HPV-DNA in tissue and cytological materials, thus making it possible to distinguish metastatic cervical carcinoma from a new primary tumour in different sites.

[499]

TÍTULO / TITLE: - mTOR inhibition does not prevent lung adenocarcinoma-induced malignant pleural effusion.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Respirology. 2013 Jul 2. doi: 10.1111/resp.12151.

●● Enlace al texto completo (gratis o de pago) [1111/resp.12151](#)

AUTORES / AUTHORS: - Vazakidou ME; Magkouta S; Moschos C; Kalomenidis I

INSTITUCIÓN / INSTITUTION: - Department of Critical Care and Pulmonary Services, School of Medicine, University of Athens, Evangelismos Hospital, Athens, Greece.

RESUMEN / SUMMARY: - We investigated the impact of temsirolimus, in a murine model of malignant pleural effusion (MPE) created with intrapleural injection of Lewis Lung Cancer (LLC) cells. Temsirolimus (1mg/kg or 20 mg/kg) did not affect the pleural fluid volume or the number of pleural tumor foci. In addition, temsirolimus did not affect Vascular Endothelial Growth Factor (VEGF) expression by LLC cells in vitro. In conclusion, temsirolimus did not curtail experimental lung-adenocarcinoma-induced MPE.

[500]

TÍTULO / TITLE: - Evaluating the Utility of Existing Patient-Reported Outcome Scales in Novel Patient Populations with Pancreatic Cancer, Lung Cancer, and Myeloproliferative Neoplasms Using Medicare Current Beneficiary Survey Data.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Patient. 2013 Jul 5.

●● Enlace al texto completo (gratis o de pago) [1007/s40271-013-0018-](#)

[Z](#)

AUTORES / AUTHORS: - Ivanova JI; Mytelka DS; Duh MS; Birnbaum HG; Cummings AK; San Roman AM; Price GL; Swindle RW

INSTITUCIÓN / INSTITUTION: - Analysis Group, Inc., New York, NY, USA.

RESUMEN / SUMMARY: - BACKGROUND: While there are validated patient-reported outcomes (PRO) instruments for use in specific cancer populations, no validated general instruments exist for use in conditions common to multiple cancers, such as muscle wasting and consequent physical disability. The Medicare Current Beneficiary Survey (MCBS), a survey in a nationally representative sample of Medicare beneficiaries, includes items from three well known scales with general applicability to cancer patients: Katz activities of daily living (ADL), Rosow-Breslau instrumental ADL (IADL), and a subset of physical performance items from the Nagi scale. OBJECTIVE: This study evaluated properties of the Katz ADL, Rosow-Breslau IADL, and a subset of the Nagi scale in patients with pancreatic cancer, lung cancer, and myeloproliferative neoplasms (MPN) using data from MCBS linked with Medicare claims in order to understand the potential utility of the three scales in these populations; understanding patient-perceived significance was not in scope. METHODS: The study cohorts included Medicare beneficiaries aged ≥ 65 years as of 1 January of the year of their first cancer diagnosis with one or more health assessments in a community setting in the MCBS Access to Care data from 1991 to 2009. Beneficiaries had at least two diagnoses in de-identified Medicare claims data linked to the MCBS for one of the following cancers: pancreatic, lung, or MPN. The Katz ADL, Rosow-Breslau IADL, and Nagi scales were calculated to assess physical functioning over time from cancer diagnosis. Psychometric properties for each scale in each cohort were evaluated by testing for internal consistency, test-retest reliability, and responsiveness by comparing differences in mean scale scores over time as cancer progresses, and differences in mean scale scores before and after hospitalization (for lung cancer cohort). RESULTS: The study cohorts included 90 patients with pancreatic cancer, 863 with lung cancer, and 135 with MPN. Among each cancer cohort, the Katz ADL, Rosow-Breslau IADL, and Nagi scales had acceptable internal consistency (Cronbach's alpha generally between 0.70 and 0.90) and test-retest reliability for consecutive surveys before diagnosis and consecutive surveys after diagnosis (when patients' functioning was more stable). Compared with mean scale scores at the survey 1-2 years before cancer diagnosis (baseline), mean scale scores at the first survey after cancer diagnosis were significantly higher ($P < 0.05$), indicating worsening, for Katz ADL, Rosow-Breslau IADL, and Nagi

scales (items scored 0-1) (0.54 vs. 1.45, 1.15 vs. 2.20, and 2.29 vs. 3.08, respectively, for pancreatic cancer; 0.73 vs. 1.24, 1.29 vs. 2.01, and 2.41 vs. 2.85 for lung cancer; and 0.44 vs. 0.86, 0.87 vs. 1.36, and 1.87 vs. 2.32 for MPN). Among lung cancer patients, scale scores increased significantly following a hospitalization, suggesting a worsening of functional status. CONCLUSIONS: The Katz ADL, Rosow-Breslau IADL, and Nagi scales collected in the MCBS demonstrate acceptable internal consistency and test-retest reliability among patients with pancreatic cancer, lung cancer, and MPN, and are consistent with clinical worsening following diagnosis or hospitalization. These results suggest that using retrospective data may allow researchers to conduct preliminary assessments of existing PRO instruments in new populations of interest and generate useful exploratory disease information before embarking on de novo PRO development.

[501]

TÍTULO / TITLE: - Cyclooxygenase-2, epidermal growth factor receptor, and aromatase signaling in inflammation and mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Cancer Ther. 2013 Jun;12(6):844-52. doi: 10.1158/1535-7163.MCT-12-1103. Epub 2013 May 31.

●● Enlace al texto completo (gratis o de pago) [1158/1535-7163.MCT-12-1103](#)

AUTORES / AUTHORS: - Nuvoli B; Galati R

INSTITUCIÓN / INSTITUTION: - Molecular Medicine Area, Regina Elena National Cancer Institute, Rome, Italy.

RESUMEN / SUMMARY: - Malignant mesothelioma or mesothelioma is a rare form of cancer that develops from transformed cells originating in the mesothelium, the protective lining that covers many of the internal organs of the body. It is directly linked to asbestos exposure, which acts as a carcinogen by initiating the carcinogenic process. Because of their shape, asbestos fibers can cross the membrane barriers inside the body and cause inflammatory and fibrotic reactions. Such reactions are believed to be the mechanism by which asbestos fibers may trigger malignant mesothelioma in the pleural membrane around the lungs. Carcinogens are known to modulate the transcription factors, antiapoptotic proteins, proapoptotic proteins, protein kinases, cell-cycle proteins, cell adhesion molecules, COX-2, and growth factor signaling pathways. This article reviews recent studies regarding some malignant mesothelioma molecular targets not only for cancer prevention but also for cancer therapy.

[502]

TÍTULO / TITLE: - Association Between Glutathione S-Transferase Omega 1 A140D Polymorphism in the Turkish Population and Susceptibility to Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Arh Hig Rada Toksikol. 2013 Jun 1;64(2):61-7. doi: 10.2478/10004-1254-64-2013-2302.

●● Enlace al texto completo (gratis o de pago) [2478/10004-1254-64-2013-2302](#)

AUTORES / AUTHORS: - Ada TG; Ada AO; Kunak SC; Alpar S; Gulhan M; Iscan M

RESUMEN / SUMMARY: - Recent years have seen a growing evidence of ethnic differences in the frequency of glutathione S-transferase omega 1 (GSTO1) A140D gene polymorphism, which is associated with various cancers such as breast and liver. Until now however, no association has been investigated between the GSTO1 A140D polymorphism and lung cancer. The aim of our study was to see if there was one in the Turkish population. To do that, we identified GSTO1 A140D polymorphism in 214 unrelated healthy individuals and 172 patients with non-small cell lung cancer (NSCLC) using the polymerase chain reaction - restriction fragment length polymorphism (PCR-RFLP) method. The frequencies of A/A (wild type), A/D (heterozygous mutant), and D/D (homozygous mutant) GSTO1 A140D genotypes in healthy subjects were 48 %, 41 %, and 11 %, respectively. In NSCLC patients they were 48 %, 45 %, and 7 %, respectively. We found no significant association between the GSTO1 A140D gene polymorphism and NSCLC or its histological subtypes, namely squamous cell carcinoma or adenocarcinoma. Furthermore, this polymorphism did not correlate with smoking. Our study is the first to show that the frequency of GSTO1 A140D gene polymorphism in the Turkish population is similar to other Caucasian populations and that this polymorphism is not associated with susceptibility to NSCLC.

[503]

TÍTULO / TITLE: - Relationship between Epidermal Growth Factor Receptor Gene Mutations and Clinicopathological Features in Patients with Non-Small Cell Lung Cancer in Western Turkey.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(6):3705-9.

AUTORES / AUTHORS: - Unal OU; Oztop I; Calibasi G; Baskin Y; Koca D; Demir N; Akman T; Ellidokuz H; Yilmaz AU

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Dokuz Eylul University, Turkey E-mail : drolcun@hotmail.com.

RESUMEN / SUMMARY: - Background: To investigate epidermal growth factor receptor (EGFR) gene mutations in patients with non-small cell lung cancer (NSCLC) and to analyze any relationship with clinicopathological features and

prognosis. Materials and Methods: EGFR gene exons 18-21 in 48 specimens of paraffin-embedded tumor tissue from NSCLC patients were amplified by PCR, followed by direct sequencing and analysis of links to clinicopathological features and prognosis. Results: EGFR mutations were detected in 18 of 48 (42.6%) patients with NSCLC. There were 9 cases of mutations in exon 20, 7 in exon 19 and 2 in exon 21. Mutations were more frequently observed in women (5/7 pts, 71.4%) than in men (13/41 pts, 31.7%) ($p=0.086$) and in non-smokers (5/5 pts, 100%) than smokers (13/43 pts, 30.2%). There was negative correlation of EGFR mutations with smoking status ($p=0.005$). EGFR mutations were more frequently observed with adenocarcinoma histology (13/32 pts, 40.6%) than in other types (5/16 pts, 31.3%) ($p=0.527$). The patients with EGFR mutations had better survival than those with wild-type EGFR ($p=0.08$). There was no association of EGFR mutations with metastatic spread. Conclusions: EGFR mutations in NSCLC were here demonstrated more frequently in females, non-smokers and adenocarcinoma histology in the western region of Turkey. Patients with EGFR mutations have a better prognosis.

[504]

TÍTULO / TITLE: - Uracil DNA glycosylase expression determines human lung cancer cell sensitivity to pemetrexed.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Cancer Ther. 2013 Jul 19.

●● Enlace al texto completo (gratis o de pago) [1158/1535-7163.MCT-13-0172](#)

AUTORES / AUTHORS: - Weeks LD; Fu P; Gerson SL

INSTITUCIÓN / INSTITUTION: - 1Pathology, Case Western Reserve University.

RESUMEN / SUMMARY: - Uracil misincorporation into DNA is a consequence of pemetrexed inhibition of thymidylate synthetase. The base excision repair (BER) enzyme, uracil DNA glycosylase (UNG) is the major glycosylase responsible for removal of misincorporated uracil. We previously illustrated hypersensitivity to pemetrexed in UNG-/- human colon cancer cells. Here, we examined the relationship between UNG expression and pemetrexed sensitivity in human lung cancer. We observed a spectrum of UNG expression in human lung cancer cells. Higher levels of UNG are associated with pemetrexed resistance and are present in cell lines derived from pemetrexed-resistant histological subtypes (small cell and squamous cell carcinoma). Acute pemetrexed exposure induces UNG protein and mRNA, consistent with up-regulation of uracil-DNA repair machinery. Chronic exposure of H1299 adenocarcinoma cells to increasing pemetrexed concentrations established drug-resistant sublines. Significant induction of UNG protein confirmed up-regulation of BER as a feature of acquired pemetrexed resistance. Co-treatment with the BER inhibitor, methoxyamine (MX) overrides pemetrexed resistance in chronically exposed cells, underscoring the utility of BER directed therapeutics

to offset acquired drug resistance. Expression of UNG-directed siRNA and shRNA enhanced sensitivity in A549 and H1975 cells, and in drug-resistant sublines, confirming that UNG up-regulation is protective. In human lung cancer, UNG deficiency is associated with pemetrexed-induced retention of uracil in DNA that destabilizes DNA replication forks resulting in DNA double strand breaks and cell death. Thus, in experimental models, UNG is a critical mediator of pemetrexed sensitivity that warrants evaluation to determine clinical value.

[505]

TÍTULO / TITLE: - Role of biopsy in low-grade laryngeal chondrosarcoma: report of two cases.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pathologica. 2013 Feb;105(1):5-7.

AUTORES / AUTHORS: - Onorati M; Moneghini L; Maccari A; Albertoni M; Talamo I; Ferrario F; Bulfamante G; Romagnoli S; Di Nuovo F

INSTITUCIÓN / INSTITUTION: - Division of Pathology, Bollate e Garbagnate Milanese, A.O.G. Salvini, Garbagnate Milanese, Milan, Italy.

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RESUMEN / SUMMARY: - Laryngeal chondrosarcomas are rare tumours that account for less than 1% of all sarcomas and originate principally from the crycoid cartilage. We report two cases: the former arising from thyroid cartilage in an 85-year-old male presenting with a palpable neck mass and hoarseness, dyspnoea and dysphagia; the other in a 54-year-old male with a mass growing from crycoid cartilage, who underwent biopsy followed by total laryngectomy. We discuss the peculiarity of the site of origin and the role of biopsy, the clinical presentation of the former case and the diagnostic and therapeutic procedures of the latter. Since it is a rare form of sarcoma arising in the larynx, we discuss the role of biopsy as a crucial although still controversial diagnostic tool.

[506]

TÍTULO / TITLE: - A Radiation Oncologist's and Thoracic Surgeon's View on the Role of Stereotactic Ablative Radiotherapy for Operable Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Semin Thorac Cardiovasc Surg. 2013 Spring;25(1):8-13. doi: 10.1053/j.semtcvs.2013.01.006.

●● Enlace al texto completo (gratis o de pago)

1053/j.semtcvs.2013.01.006

AUTORES / AUTHORS: - Timmerman RD; Fernando HC

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, University of Texas Southwestern Medical Center, Dallas, Texas. Electronic address:

robert.timmerman@utsouthwestern.edu.

RESUMEN / SUMMARY: - Stereotactic ablative radiotherapy, also known as stereotactic body radiation therapy, has been developed as an innovative therapy for stage I non-small cell lung cancer and has now emerged as a standard treatment option for medically inoperable patients through careful analysis using prospective multi-institutional trials. We review and update the evidence for use of stereotactic ablative radiotherapy in medically inoperable patients with stage I lung cancer, and its possible extension of use to operable patients, from the perspectives of an experienced radiation oncologist and a thoracic surgeon.

[507]

TÍTULO / TITLE: - Down-regulation of microRNA-181b is a potential prognostic marker of non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pathol Res Pract. 2013 Jun 6. pii: S0344-0338(13)00131-3. doi: 10.1016/j.prp.2013.04.018.

●● Enlace al texto completo (gratis o de pago) 1016/j.prp.2013.04.018

AUTORES / AUTHORS: - Yang J; Liu H; Wang H; Sun Y

INSTITUCIÓN / INSTITUTION: - Department of Radiotherapy and Chemotherapy, People's Hospital of Tangshan City, Hebei Province, PR China. Electronic address: yangjq_ts@163.com.

RESUMEN / SUMMARY: - The aim of this study was to investigate the clinical significance of microRNA-181b (miR-181b) expression in non-small cell lung cancer (NSCLC). MiR-181b expression in 126 pairs of surgically removed NSCLC tissues and their corresponding normal lung tissues was measured by real-time quantitative RT-PCR assay. Additionally, the correlation of miR-181b expression with clinicopathological factors or prognosis of patients was analyzed. At first, miR-181b expression was significantly down-regulated in NSCLC tissues as compared with their normal counterparts ($P < 0.001$). Then, the low miR-181b expression was found to be closely correlated with larger tumor size ($P = 0.02$), higher p-TNM stage ($P = 0.008$) and positive lymph node metastasis ($P = 0.03$) of NSCLC patients. After that, survival analysis found that the overall survival ($P = 0.001$) and disease-free survival ($P = 0.008$) of NSCLC patients with low miR-181b expression were both significantly poorer compared to those patients with high miR-181b expression. Finally, both univariate and multivariate analyses demonstrated that low miR-181b expression may be a poor prognostic marker of NSCLC patients. This is the first study to indicate that down-regulation of miR-181b may be correlated with aggressive disease progression and poor prognosis of NSCLC patients, suggesting that miR-181b might be involved in lung carcinogenesis and become a potential prognostic marker for NSCLC.

[508]

TÍTULO / TITLE: - Effect of talactoferrin alfa on the immune system in adults with non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncologist. 2013;18(7):821-2. doi: 10.1634/theoncologist.2013-0199. Epub 2013 Jul 11.

●● Enlace al texto completo (gratis o de pago)

[1634/theoncologist.2013-0199](#)

AUTORES / AUTHORS: - Madan RA; Tsang KY; Bilusic M; Vergati M; Poole DJ; Jochems C; Tucker JA; Schlom J; Giaccone G; Gulley JL

INSTITUCIÓN / INSTITUTION: - Laboratory of Tumor Immunology and Biology and.

RESUMEN / SUMMARY: - Talactoferrin alfa (talactoferrin), an agent with immune-stimulating properties, has demonstrated safety and preliminary efficacy in clinical trials. Methods. Ten patients (five males and five females) with stage IV non-small cell lung cancer (NSCLC) in a single-arm pilot study received orally administered talactoferrin (1.5 g, b.i.d.) for up to 24 weeks. Radiographic and immunologic studies were performed at baseline and at weeks 6 and 12. Circulating immune cells (natural killer cells [NKC], CD4(+), CD8(+), and regulatory T cells) and systemic cytokine levels were measured to assess immune response. Results. Patients enrolled in the study had received a median of four prior chemotherapy regimens, and all patients were symptomatic. Talactoferrin was well tolerated, with no grade 3 or 4 toxicities. Median time to progression (TTP) and overall survival were 6 weeks and 14.5 weeks, respectively. The four patients with ≥ 9 weeks TTP had evidence of immunologic activity (three with increased NKC activity). Conclusions. The median of four previous chemotherapy regimens, with elevated levels of interleukin (IL) 6 and tumor necrosis factor- α in most patients, suggests these patients were poor candidates for immunotherapy.

[509]

TÍTULO / TITLE: - Lipoprotein lipase in non-small cell lung cancer tissue is highly expressed in a subpopulation of tumor-associated macrophages.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pathol Res Pract. 2013 Jun 28. pii: S0344-0338(13)00142-8. doi: 10.1016/j.prp.2013.06.004.

●● Enlace al texto completo (gratis o de pago) [1016/j.prp.2013.06.004](#)

AUTORES / AUTHORS: - Podgornik H; Sok M; Kern I; Marc J; Cerne D

INSTITUCIÓN / INSTITUTION: - Department of Haematology, University Medical Centre Ljubljana, Zaloska cesta 2, 1000 Ljubljana, Slovenia.

RESUMEN / SUMMARY: - High lipoprotein lipase (LPL) activity in non-small cell lung cancer (NSCLC) tissue strongly predicts shorter patient survival. We tested the hypothesis that in NSCLC tissue, macrophages are the major site of LPL expression. LPL expression in the entire NSCLC tissue and in the adjacent non-

cancer lung tissue was compared to the expression of genes preferentially expressed in macrophages. LPL expression at the cellular level was analyzed by mRNA fluorescence in situ hybridization. In the whole cancer tissue (but not in the adjacent non-cancer tissue), expression of LPL correlated with expression of genes preferentially expressed in macrophages (MSR1, CD163, FOLR2), but not with expression of genes preferentially expressed in tumor cells. All cells in the cancer and adjacent non-cancer tissue exhibit low LPL expression. However, in cancer tissue only, there were individual highly LPL-expressing cells which were macrophages. These LPL-overexpressing cells were approximately 10 times less abundant than anti-CD163-stained, tumor-associated macrophages. To conclude, in NSCLC tissue, a subpopulation of tumor-associated macrophages highly expresses LPL. Because tumor-associated macrophages are pro-tumorigenic, these cells should be further characterized to better understand the underlying nature of the close relationship between high LPL activity in NSCLC tissue and shorter patient survival.

[510]

TÍTULO / TITLE: - Capsaicin provokes apoptosis and restricts benzo(a)pyrene induced lung tumorigenesis in Swiss albino mice.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int Immunopharmacol. 2013 Jun 6;17(2):254-259. doi: 10.1016/j.intimp.2013.05.015.

●● Enlace al texto completo (gratis o de pago)

[1016/j.intimp.2013.05.015](#)

AUTORES / AUTHORS: - Anandakumar P; Kamaraj S; Jagan S; Ramakrishnan G; Devaki T

INSTITUCIÓN / INSTITUTION: - School of Health Sciences, Asella Medical Campus, Adama Science & Technology University, Adama, Ethiopia. Electronic address: bioanand77@gmail.com.

RESUMEN / SUMMARY: - Capsaicin (CAP), a constituent of red chilli and red pepper is exposed to exert compelling anticarcinogenic effects. In the present study, we examined the anti-tumorigenic potential of CAP on benzo(a)pyrene-induced mice lung tumorigenesis by analyzing the markers of apoptosis. Intraperitoneal administration of CAP (10mg/kg body weight) to Swiss albino mice suppressed the development of lung carcinoma by amending the protein expressions of apoptotic regulators p53, Bcl-2, Bax and caspase-3. The apoptotic-inducing nature of CAP was further confirmed by DNA agarose gel electrophoresis, transmission electron microscopic study and ethidium bromide/acridine orange staining. The results obtained from the present study show that CAP inhibits the development of mice lung carcinogenesis through its ability to induce apoptosis. Our present findings provide the basis for further

clinical exploration of CAP as an anti-carcinogenic compound against lung carcinogenesis.

[511]

TÍTULO / TITLE: - Molecular prognostication of non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Semin Thorac Cardiovasc Surg. 2013 Spring;25(1):4-7.
doi: 10.1053/j.semtcvs.2013.01.007.

●● Enlace al texto completo (gratis o de pago)

[1053/j.semtcvs.2013.01.007](#)

AUTORES / AUTHORS: - Tsao MS; Jablons DM

INSTITUCIÓN / INSTITUTION: - Department of Pathology, University Health Network, Ontario, Canada; Department of Laboratory Medicine and Pathobiology, University of Toronto, Ontario, Canada.

[512]

TÍTULO / TITLE: - Primary pleural malignant mesothelioma with delayed metastasis to the piriform sinus: Report of a case.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ear Nose Throat J. 2013 Jun;92(6):E55-8.

AUTORES / AUTHORS: - Taskin U; Yigit O; Aricigil M; Huq G

INSTITUCIÓN / INSTITUTION: - Department of Otorhinolaryngology, Bagcilar Research and Education Hospital, Bagcilar St. No. 2, Bagcilar, Istanbul 35200, Turkey. taskin_umit@yahoo.com.

RESUMEN / SUMMARY: - Piriform sinus tumors are uncommon and silent lesions. Their prognosis is poor because these tumors are usually not detected until they have reached an advanced stage. Almost all piriform sinus cancers are primary squamous cell carcinomas; other primary and metastatic tumors of the hypopharynx are exceedingly rare. One of the rare tumors in the laryngopharyngeal area is sarcomatoid carcinoma, which is an unusual type of squamous cell carcinoma. Another uncommon malignant tumor that is histologically similar to sarcomatoid carcinoma is malignant mesothelioma, which is a rare form of lung carcinoma. The macroscopic appearance and histologic characteristics of sarcomatoid carcinoma and malignant mesothelioma are so similar that differentiation is usually achieved by immunohistochemical examination. To the best of our knowledge, no case of primary or metastatic laryngopharyngeal malignant mesothelioma has been previously reported in the literature. In this article, we describe a case of isolated malignant mesothelioma of the piriform sinus that resembled a sarcomatoid carcinoma in a 50-year-old man with a history of lung mesothelioma.

[513]

TÍTULO / TITLE: - Current readings: pathology, prognosis, and lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Semin Thorac Cardiovasc Surg. 2013 Spring;25(1):14-21.
doi: 10.1053/j.semtcv.2013.01.003.

- Enlace al texto completo (gratis o de pago)

[1053/j.semtcv.2013.01.003](#)

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INSTITUCIÓN / INSTITUTION: - Department of Pathology, NYU Langone Medical Center, New York, New York. Electronic address: James.Suh@nyumc.org.

RESUMEN / SUMMARY: - The 2011 International Association for the Study of Lung Cancer/American Thoracic Society/European Respiratory Society international multidisciplinary classification of lung adenocarcinoma introduced the new categories of adenocarcinoma in situ, minimally invasive adenocarcinoma, and invasive mucinous adenocarcinoma, and replaced the category of mixed subtype adenocarcinoma with lepidic, acinar, papillary, micropapillary, and solid predominant adenocarcinoma. The aim of this manuscript is to evaluate whether the new classification can be applied successfully in determining prognosis of surgically resected patients. Six consecutive clinicopathologic studies using the new classification that were published between spring 2011 and fall 2012 were reviewed. Overall, they demonstrated excellent outcome for adenocarcinoma in situ and minimally invasive adenocarcinoma; intermediate outcome for lepidic, acinar, and papillary predominant adenocarcinoma; and poor outcome for solid and micropapillary predominant adenocarcinoma and invasive mucinous adenocarcinoma. As the new classification remains a proposal at this time, it is hoped that thoracic surgeons will play a leading role in its worldwide dissemination for clinical care and research.

[514]

TÍTULO / TITLE: - The Incidence of EGFR-Activating Mutations in Bone Metastases of Lung Adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pathol Oncol Res. 2013 Jul 14.

- Enlace al texto completo (gratis o de pago) [1007/s12253-013-9667-](#)

[4](#)

AUTORES / AUTHORS: - Krawczyk P; Nicos M; Ramlau R; Powrozek T; Wojas-Krawczyk K; Sura S; Jarosz B; Szumilo J; Warda E; Mazurkiewicz T; Sawicki M; Milanowski J

INSTITUCIÓN / INSTITUTION: - Department of Pneumology, Oncology and Allergology, Medical University of Lublin, Jaczewskiego 8, 20-954, Lublin, Poland, krapa@poczta.onet.pl.

RESUMEN / SUMMARY: - Poor prognosis of lung adenocarcinoma is associated with early occurrence of distant metastases. This type of non-small-cell lung carcinoma more frequently involves EGFR gene abnormalities, which determine the efficacy of EGFR tyrosine kinase inhibitor therapies (EGFR TKIs). It is probable that genetic abnormalities present in primary tumor will also be present in metastases. Unfortunately little is known about the incidence of these mutations in the metastases and about the effectiveness of molecularly targeted therapy in such patients. Formalin-fixed, paraffin-embedded tumor tissue was prepared from 431 samples of primary adenocarcinoma, 61 of adenocarcinoma central nervous system (CNS) metastases and 8 of adenocarcinoma bone metastases. The presence of exon 19 deletions was examined using the PCR technique and amplified PCR product fragment length analysis. The ASP-PCR technique was used to evaluate the L858R substitutions in exon 21, and the results were analyzed using ALF Express II sequencer. In the adenocarcinoma metastases to bone obtained from 8 patients, deletions in exon 19 of the EGFR gene were revealed in 3 smoking men and one non-smoking woman, while L858R substitution in exon 21 was found in one smoking woman and one man of unknown smoking status. The incidence of EGFR gene mutations in the bone metastases was 75 %, in the primary adenocarcinoma - 12.8 %, and in the adenocarcinoma metastases to CNS - 14.75 %. Five patients with EGFR gene mutation revealed in bone metastases were treated with EGFR TKIs; the majority of them had a satisfactory response to therapy.

[515]

TÍTULO / TITLE: - Identification of intravascular tumor microenvironment features predicting the recurrence of pathological stage I lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Sci. 2013 Jun 20. doi: 10.1111/cas.12219.

●● Enlace al texto completo (gratis o de pago) [1111/cas.12219](#)

AUTORES / AUTHORS: - Kaseda K; Ishii G; Aokage K; Takahashi A; Kuwata T; Hishida T; Yoshida J; Kohno M; Nagai K; Ochiai A

INSTITUCIÓN / INSTITUTION: - Pathology Division, Research Center for Innovative Oncology, National Cancer Center Hospital East, Chiba, Japan; Division of Thoracic Surgery, National Cancer Center Hospital East, Chiba, Japan; Division of General Thoracic Surgery, Department of Surgery, Keio University School of Medicine, Tokyo, Japan.

RESUMEN / SUMMARY: - Histological vascular invasion (VI) by tumors is reportedly a risk factor influencing recurrence or survival after surgical treatment; however, few studies have evaluated which VI features affect recurrence or survival. The objective of this study was to evaluate how VI features affect recurrence in lung adenocarcinoma patients. We selected 106 patients with pathological stage I lung adenocarcinoma who showed VI and examined the properties of intravascular tumors associated with recurrence.

First we investigated the relationship between the frequency of VI in a histological cross-section and the incidence of recurrence; however, a significant impact was not observed. Microscopic examination revealed the intravascular tumors were composed of not only cancer cells but also non-cancerous cells. To examine whether the characteristics of intravascular cancer cells and/or non-cancerous cells have prognostic value, we examined the expression levels of epithelial-mesenchymal transition-related markers in cancer cells and the numbers of infiltrating non-cancerous cells, including macrophages, endothelial cells, and fibroblasts. High levels of E-cadherin expression in the intravascular cancer cells were significant predictors of recurrence ($P = 0.004$), whereas the expressions of CD44, CD44 variant 6, and vimentin were not. Large numbers of intravascular CD204(+) macrophages ($P = 0.016$), CD34(+) microvessels ($P = 0.007$), and alpha-smooth muscle actin (+) fibroblasts ($P = 0.033$) were also significant predictors of recurrence. Our results indicated VI with abundant stromal cell infiltrates might be a predictor of recurrence and suggested the tumor microenvironment created by cancer cells and stromal cells within the blood vessel may play an important role during the metastatic process.

[516]

TÍTULO / TITLE: - Lung cancer trends in Southeastern Serbia.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cent Eur J Public Health. 2013 Mar;21(1):17-21.

AUTORES / AUTHORS: - Kocic B; Petrovic B; Rancic N; Ilic M

INSTITUCIÓN / INSTITUTION: - Department of Epidemiology, Faculty of Medicine, University of Nis, Serbia. biljaizz@yahoo.com

RESUMEN / SUMMARY: - The aim of the study was to assess recent changes in lung cancer incidence and mortality trends in the male and female population in Southeastern Serbia, in the period 1999-2008. Data used for analyses were provided by the Cancer Registry of the Institute for Public Health, Nis. Incidence and mortality trends were based on crude and age-standardized incidence and mortality rates for the period 1999-2008. Standardized rates were calculated by the direct method of standardization (per 100,000), using the world population as the standard. Statistical significance was checked on the basis of correlation coefficient Φ for probability (p) on the level of 0.05. A total of 3,128 new cases and 2,327 deaths from lung cancer were registered (males/females ratio is 4:1). In males, the crude (107.94) and the age-standardized incidence rate (59.88) were four-fold higher than in females (27.10 and 14.21). In males, the crude mortality rate was four-fold higher than in females (80.61 vs. 19.87), while the age-standardized mortality rate was four and a half higher than in females (43.78 vs. 9.54). Lung cancer incidence trend, based on crude and age-standardized incidence rates, in females was increasing while in males was decreasing. Lung cancer mortality trends, based

on crude and age-standardized incidence rates, were increasing in both sexes. Registration of unfavourable incidence and mortality trends of lung cancer indicate failure in primary and secondary prevention in the past. It is thus of vital importance to provide much intensive and comprehensive activities for primary and secondary prevention of lung cancer in the future, including education and rigorous tobacco control as well.

[517]

TÍTULO / TITLE: - Racial disparities and lung cancer care: why the unequal playing field?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Semin Thorac Cardiovasc Surg. 2013 Spring;25(1):2-3. doi: 10.1053/j.semtcvs.2013.02.003.

●● Enlace al texto completo (gratis o de pago)

1053/j.semtcvs.2013.02.003

AUTORES / AUTHORS: - Hayanga AJ; D'Cunha J

INSTITUCIÓN / INSTITUTION: - Department of Cardiothoracic Surgery, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania.

RESUMEN / SUMMARY: - The existence of disparities within our healthcare system is receiving considerable national attention, as we seek to understand the magnitude of these disparities with the goal of eliminating them altogether. Herein, we review recent important work that captures the current progress in this important area that has direct implications for the thoracic surgeon's daily practice management.

[518]

TÍTULO / TITLE: - The Value of Surface Enhanced Laser Desorption/Ionization-time of Flight Mass Spectrometry at the Diagnosis of Non-small Cell Lung Cancer: a Systematic Review.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Technol Cancer Res Treat. 2013 Jul 11.

●● Enlace al texto completo (gratis o de pago) 7785/tcrt.2012.500360

AUTORES / AUTHORS: - Jiang F; Zhou XY; Huang J

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RESUMEN / SUMMARY: - Numbers of studies used surface enhanced laser desorption/ionization-time of flight mass spectrometry (SELDI-TOF-MS) to find novel serum biomarkers for non-small cell lung cancer (NSCLC). It is arguable whether the SELDI technique has its value of diagnostic accuracy for NSCLC. The purpose of our study is to determine the diagnostic accuracy of SELDI-TOF-MS for diagnosing NSCLC. The Cochrane Central Register of Controlled

Trials, MEDLINE, Pub Med, EMBASE, the Chinese Biomedical Literature Database, the China Academic Journals Full-text Database, and the Chinese Scientific Journals Database were searched systematically for potential studies. Reference lists of included studies and review articles were also reviewed. All studies that reported data on patients with a confirmed diagnosis of NSCLC and that compared the measurement of SELDI-TOF-MS with pathology standard were considered for inclusion. 11 studies were included in the systematic review. The ranges of the diagnostic value of SELDI-TOF-MS for NSCLC were as follows: sensitivity (SEN) was 0.70 1.00; specificity (SPE) was 0.68 1.00; positive likelihood ratio (PLR) was 2.23 23.14; negative likelihood ratio (NLR) was 0.04 0.43; and diagnostic odds ratio (DOR) was 5.17 621.0, respectively. SELDI-TOF-MS showed high accuracy in identifying NSCLC, and could be a potential screening tool for diagnosing NSCLC patients.

[519]

TÍTULO / TITLE: - Erratum to: Assessment of FDG retention differences between the FDG-avid benign pulmonary lesion and primary lung cancer using dual-time-point FDG-PET imaging.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Nucl Med. 2013 Jul 17.

- Enlace al texto completo (gratis o de pago) [1007/s12149-013-0754-0](#)

AUTORES / AUTHORS: - Kaneko K; Sadashima E; Irie K; Hayashi A; Masunari S; Yoshida T; Omagari J

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[520]

TÍTULO / TITLE: - The increment in standardized uptake value determined using dual-phase F-FDG PET is a promising prognostic factor in non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Nucl Med Mol Imaging. 2013 Jun 7.

- Enlace al texto completo (gratis o de pago) [1007/s00259-013-2452-5](#)

AUTORES / AUTHORS: - Chen HH; Lee BF; Su WC; Lai YH; Chen HY; Guo HR; Yao WJ; Chiu NT

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, 138 Sheng-Li Road, Tainan 704, Taiwan.

RESUMEN / SUMMARY: - PURPOSE: We aimed to determine whether the increment in the maximal standardized uptake value (SUVmax) of the primary

lung tumour between the initial and delayed imaging by dual-phase 18F-FDG PET has prognostic value in patients with non-small-cell lung cancer (NSCLC). METHODS: We reviewed the records of patients with NSCLC who underwent pretreatment dual-phase 18F-FDG PET/CT scans acquired at 1 h and 2 h after injection. The SUVmax increment (SUVinc) of the primary lung tumour was the 2-h SUVmax minus the 1-h SUVmax. Univariate and multivariate analyses were used to assess the prognostic significance of SUVinc, retention index, whole-body total metabolic tumour volume, whole-body total lesion glycolysis (TLGwb), 1-h SUVmax, 2-h SUVmax, gender, age, performance status, histological subtype, T stage, N stage and clinical stage. RESULTS: The records of 187 consecutive patients were reviewed. The median follow-up time was 3.9 years. The estimated median progression-free survival (PFS) and overall survival (OS) were 1.3 years and 4.4 years, respectively. An SUVinc cut-off value of >1 had the best discriminative yield for PFS. The 3-year PFS and OS were 61.6 % and 87.8 % in patients with SUVinc ≤1 versus 21.1 % and 46.2 % in patients with SUVinc >1 (all P < 0.01). Using the forward stepwise multivariate Cox proportional hazards model, SUVinc, TLGwb, and clinical stage were significant factors for PFS (all P < 0.01). A subgroup analysis of 117 patients treated with surgery showed that SUVinc (P = 0.02) and clinical stage (P < 0.01) were significant prognostic factors for PFS. Furthermore, in stage I patients treated with surgery alone, SUVinc was the only significant prognostic factor (HR 28.07; 95 % CI 2.42 - 326.41). CONCLUSION: SUVinc determined from dual-phase 18F-FDG PET is a promising prognostic factor for NSCLC. It adds to the value of dual-phase 18F-FDG PET.

[521]

TÍTULO / TITLE: - Impact of age on clinical presentation, treatment, and cancer-specific survival of patients with small-cell carcinoma of the prostate.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Interv Aging. 2013;8:871-7. doi: 10.2147/CIA.S44772. Epub 2013 Jul 10.

●● Enlace al texto completo (gratis o de pago) [2147/CIA.S44772](#)

AUTORES / AUTHORS: - Wang J; Wang FW

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RESUMEN / SUMMARY: - BACKGROUND: The effects of age on clinical presentation, treatment, and outcomes for patients with small-cell carcinoma of the prostate (SCCP) are unclear. METHODS: A retrospective review was performed on 259 patients who were identified with SCCP in the national Surveillance, Epidemiology, and End Results (SEER) registry from January 1973 to December 2004. The patients were categorized into two groups according to age at diagnosis, ie, younger than 75 years (n = 158, 61%) or 75

years and older (n = 101, 39%). Patient and treatment characteristics and cancer-specific survival were compared between the groups. Multivariate analysis was performed to identify independent prognostic factors associated with cancer-specific survival. RESULTS: The median age of the patients was 72 (30-95) years. There was no significant difference in terms of tumor characteristics, concomitant adenocarcinoma grade, SEER stage, and treatment (including prostatectomy and radiation therapy) received between the groups. Median cancer-specific survival was 19 months (95% confidence interval 13-25). By multivariate Cox proportional hazard modeling, older age group (hazard ratio [HR] 1.95; P = 0.001), concomitant high-grade adenocarcinoma (HR 7.13; P = 0.007), and not having prostatectomy (HR 3.77; P = 0.005) were found to be significant independent predictors of poor cancer-specific survival. CONCLUSION: Older patients with SCCP had increased risk of poor cancer-specific survival. Whether this age-related poor outcome can be attributed to more aggressive tumor biology in older patients, or is simply a reflection of age-related poor performance status and suboptimal chemotherapy needs further investigation.

[522]

TÍTULO / TITLE: - Thirdhand Tobacco Smoke: A Tobacco-Specific Lung Carcinogen on Surfaces in Smokers' Homes.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Nicotine Tob Res. 2013 Jul 26.

●● Enlace al texto completo (gratis o de pago) [1093/ntr/ntt110](#)

AUTORES / AUTHORS: - Thomas JL; Hecht SS; Luo X; Ming X; Ahluwalia JS; Carmella SG

INSTITUCIÓN / INSTITUTION: - Masonic Cancer Center, University of Minnesota, Minneapolis, MN.

RESUMEN / SUMMARY: - INTRODUCTION: Thirdhand tobacco smoke consists of substances remaining on the surfaces or in the dust of areas where people have smoked. While previous studies have demonstrated the presence of nicotine and various other constituents of tobacco smoke on surfaces in smokers' homes, none has investigated the presence of tobacco-specific carcinogens. METHODS: We used liquid chromatography-tandem mass spectrometry to analyze surface dust samples from both the homes of smokers and nonsmokers for the powerful tobacco-specific lung carcinogen 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK). RESULTS: We positively identified NNK on surfaces in 33 of 37 smokers' homes (700+/-788 pg/100cm² [range, not detected-3,500 pg/100cm²]), but only in 3 of 19 nonsmokers' homes (235+/-176 pg/100cm² in the homes where NNK was detected [range, not detected-435 pg/100cm²]). The differences in occurrence and levels of NNK in the homes of smokers and nonsmokers were significant (p < .0001). CONCLUSIONS: The powerful tobacco-specific lung carcinogen NNK is present on surfaces in most homes occupied by smokers. Potential renters or

buyers of apartments or homes should be notified if previous residents were smokers in order to avoid unnecessary exposure of their families to a potent lung carcinogen.

[523]

TÍTULO / TITLE: - Glycolysis inhibition sensitizes non-small cell lung cancer with T790M mutation to irreversible EGFR inhibitors via translational suppression of Mcl-1 by AMPK activation.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Cancer Ther. 2013 Jul 24.

●● Enlace al texto completo (gratis o de pago) [1158/1535-7163.MCT-12-1188](#)

AUTORES / AUTHORS: - Kim SM; Yun MR; Hong YK; Solca F; Kim JH; Kim HJ; Cho BC

INSTITUCIÓN / INSTITUTION: - 1Brain Korea 21 Project for Medical Sciences, Yonsei University College of Medicine.

RESUMEN / SUMMARY: - The secondary epidermal growth factor receptor (EGFR) T790M is the most common mechanism of resistance to reversible EGFR tyrosine kinase inhibitors (TKIs) in non-small cell lung cancer (NSCLC) patients with activating EGFR mutations. Although afatinib (BIBW2992), a second-generation irreversible EGFR TKI, was expected to overcome the acquired resistance, it showed limited efficacy in a recent phase III clinical study. In this study, we found that the inhibition of glycolysis using 2-deoxy-D-glucose (2DG) improves the efficacy of afatinib in H1975 and PC9-GR NSCLC cells with EGFR T790M. Treatment with the combination of 2DG and afatinib induced intracellular ATP depletion in both H1975 and PC9-GR cells, resulting in activation of AMP-activated protein kinase (AMPK). AMPK activation played a central role in the cytotoxicity of the combined treatment with 2DG and afatinib through the inhibition of mammalian target of rapamycin (mTOR). The alteration of the AMPK/mTOR signaling pathway by the inhibition of glucose metabolism induced specific downregulation of Mcl-1, a member of anti-apoptotic Bcl-2 family, through the translational control. The enhancement of afatinib sensitivity by 2DG was confirmed in in vivo PC9-GR xenograft model. In conclusion, this study examined whether the inhibition of glucose metabolism using 2DG enhances the sensitivity to afatinib in NSCLC cells with EGFR T790M through the regulation of AMPK/mTOR/Mcl-1 signaling pathway. These data suggest that the combined use of an inhibitor of glucose metabolism and afatinib is a potential therapeutic strategy for the treatment of patients with acquired resistance to reversible EGFR TKIs due to secondary EGFR T790M.

[524]

TÍTULO / TITLE: - Serum markers in small cell lung cancer: Opportunities for improvement.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biochim Biophys Acta. 2013 Jun 21. pii: S0304-419X(13)00037-1. doi: 10.1016/j.bbcan.2013.06.002.

●● Enlace al texto completo (gratis o de pago)

1016/j.bbcan.2013.06.002

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RESUMEN / SUMMARY: - Lung cancer is one of the leading causes of death from malignancy worldwide. In particular small cell lung cancers, which comprise about 15-20% of all lung cancers, are extremely aggressive and cure rates are extremely low. Therefore, new treatment modalities are needed and detection at an early stage of disease, as well as adequate monitoring of treatment response is essential in order to improve outcome. In this respect, the use of non-invasive tools for screening and monitoring has gained increasing interest and the clinical applicability of reliable, tumor-related substances that can be detected as tumor markers in easily accessible body fluids is subject of intense investigation. Some of these indicators, such as high LDH levels in serum as a reflection of the disease, have been in use for a long time as a general tumor marker. To allow for improved monitoring of the efficacy of new therapeutic modalities and for accurate subtyping, there is a strong need for specific and sensitive markers that are more directly related to the biology and behavior of small cell lung cancer. In this review the current status of these potential markers, like CEA, NSE, ProGRP, CK-BB, SCC, CgA, NCAM and several cytokeratins will be critically analyzed with respect to their performance in blood based assays. Based on known cleavage sites for cytoplasmic and extracellular proteases, a prediction of stable fragments can be obtained and used for optimal test design. Furthermore, insight into the synthesis of specific splice variants and neo-epitopes resulting from protein modification and cleavage, offers further opportunities for improvement of tumor assays. Finally, we discuss the possibility that detection of SCLC related autoantibodies in paraneoplastic disease can be used as a very early indicator of SCLC.

[525]

TÍTULO / TITLE: - Computational identification of specific splicing regulatory elements from RNA-seq in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur Rev Med Pharmacol Sci. 2013 Jul;17(13):1716-21.

AUTORES / AUTHORS: - Chen RL; Guo W; Shi Y; Wu H; Wang J; Sun G

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Shaanxi Provincial People's Hospital, Xi'an, Shaanxi, China. xjtu1228@live.cn

RESUMEN / SUMMARY: - BACKGROUND: Lung cancer is the most common cause of cancer-related death worldwide. Recently, deep transcriptional sequencing has been used as an effective genomic assay to get an insight into this disease. AIM: This study is carried out to identify specific regulatory elements (SREs) in lung cancer. MATERIALS AND METHODS: The RNA-sequencing data on lung cancer sample and normal sample were downloaded from NCBI. TopHat and Cufflinks were used to analyze differential alternative splicing in lung cancer by using RNA-sequencing data. Further, we searched specific SREs in lung cancer through finding over-represented hexamers around high expression exons. RESULTS: According to the Jensen-Shannon divergence between two samples and the p-value of t-test, we found 53 genes with differential alternative splicing in lung cancer. In the analysis of SREs, we found 763 specific SREs between lung cancer sample and normal sample. CONCLUSIONS: These results may give an insight into how alternative splicing causes differential expression in lung cancer.

[526]

TÍTULO / TITLE: - Clinical Outcomes and Prognostic Factors Associated with the Response to Erlotinib in Non-Small-Cell Lung Cancer Patients with Unknown EGFR Mutational Status.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):3255-61.

AUTORES / AUTHORS: - Aydiner A; Yildiz I; Seyidova A

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Istanbul University Institute of Oncology, Istanbul, Turkey E-mail : dr_ibrahim2000@yahoo.com.

RESUMEN / SUMMARY: - Background: The efficacy of erlotinib is controversial in patients with unknown EGFR mutational status. The aim of this study was to identify the clinicopathological factors that are predictive of erlotinib treatment outcomes for NSCLC patients with unknown EGFR mutational status. Materials and Methods: A retrospective analysis of 109 patients with advanced NSCLC who had previously failed at least one line of chemotherapy and received subsequent treatment with erlotinib (150 mg/day orally) was performed. A Cox proportional hazard model for univariate and multivariate analyses was used to identify the baseline clinical parameters correlating with treatment outcome, expressed in terms of hazard ratios (HRs) and 95% confidence intervals. Results: The median treatment duration was 15 weeks (range, 4-184). The disease control rate was 55%, including disease stability for ≥ 3 months for 40% of the patients. Median progression-free survival and median overall survival (OS) were 4.2 and 8.5 months, respectively. The Cox model indicated that an Eastern Cooperative Oncology Group performance status (ECOG PS)

≥ 2 (HR 3.82; $p < 0.001$), presence of intra-abdominal metastasis (HR 3.42; $p = 0.002$), 2 or more prior chemotherapy regimens (HR 2.29; $p = 0.021$), and weight loss $> 5\%$ (HR 2.05; $p = 0.034$) were independent adverse prognostic factors for OS in NSCLC patients treated with erlotinib. Conclusions: This study suggests that NSCLC patients should be enrolled in erlotinib treatment after a first round of unsuccessful chemotherapy to improve treatment success, during which they should be monitored for intra-abdominal metastasis and weight loss.

[527]

TÍTULO / TITLE: - Hopping between differentiation states in lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Cell. 2013 Jun 10;23(6):707-9. doi: 10.1016/j.ccr.2013.05.013.

●● Enlace al texto completo (gratis o de pago) [1016/j.ccr.2013.05.013](#)

AUTORES / AUTHORS: - Watanabe H; Meyerson M

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Dana-Farber Cancer Institute, 450 Brookline Avenue, Boston, MA 02215, USA.

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RESUMEN / SUMMARY: - The work by Cheung and colleagues, in this issue of Cancer Cell, demonstrates another example of how lineage-specific transcriptional regulators of differentiation, GATA6 and HOPX, can control the fate of lung adenocarcinoma progression.

[528]

TÍTULO / TITLE: - Visible and near-infrared spectroscopy for distinguishing malignant tumor tissue from benign tumor and normal breast tissues in vitro.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Biomed Opt. 2013 Jul 1;18(7):77003. doi: 10.1117/1.JBO.18.7.077003.

●● Enlace al texto completo (gratis o de pago)

[1117/1.JBO.18.7.077003](#)

AUTORES / AUTHORS: - Zhang Y; Chen Y; Yu Y; Xue X; Tuchin VV; Zhu D

INSTITUCIÓN / INSTITUTION: - Huazhong University of Science and Technology, Britton Chance Center for Biomedical Photonics, Wuhan National Laboratory for Optoelectronics, Wuhan 430074, China; Huazhong University of Science and Technology, Department of Biomedical Engineering, Key Laboratory of Biomedical Photonics of Ministry of Education, Wuhan 430074, China.

RESUMEN / SUMMARY: - ABSTRACT. The high incidence and mortality of breast cancer requires an effective, rapid, and cost-effective method for its diagnosis. Here, visible and near-infrared spectroscopy in the wavelength range of 400 to 2200 nm is utilized for distinguishing the malignant tumor tissue from benign

tumor and normal breast tissues. Based on the absorption and scattering spectra of fixed samples, three spectral analysis methods are proposed which include an absorption spectral analysis, a scattering spectral analysis, and a combined spectral analysis of the two. By comparison with the histopathological examination, the sensitivity, specificity, and accuracy of the three analysis methods are calculated. The results showed that the combined spectral analysis method can significantly enhance the effectiveness when compared with the sole absorption or scattering spectral analysis method. The sensitivity, specificity, and accuracy of the combined spectral analysis method are 100%, 87.82%, and 87.50% for the benign tumor tissue and 81.82%, 100%, and 87.5% for malignant tumor tissue, respectively. All of the three values are 100% for normal breast tissue. This study demonstrates that the combined spectral analysis method has better potential for in vitro optical diagnosis for breast lesions.

[529]

TÍTULO / TITLE: - Potential errors in staging primary pulmonary adenocarcinomas by sublobar resection.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Diagn Pathol. 2013 Jun 26. pii: S1092-9134(13)00060-9. doi: 10.1016/j.anndiagpath.2013.05.006.

●● Enlace al texto completo (gratis o de pago)

[1016/j.anndiagpath.2013.05.006](#)

AUTORES / AUTHORS: - Walts AE; Marchevsky AM

INSTITUCIÓN / INSTITUTION: - Department of Pathology & Laboratory Medicine, Cedars-Sinai Medical Center, Los Angeles, CA 90048. Electronic address: walts@cshs.org.

RESUMEN / SUMMARY: - INTRODUCTION: There is increasing interest in treating patients with stage I pulmonary adenocarcinoma with sublobar resection and staging lymphadenectomy (StLN), but there is no information on the potential impact of this approach on staging. METHODS: A total of 241 consecutive wedge resections followed by immediate completion lobectomy (n = 225), bilobectomy (n = 3), or trisegmentectomy (n = 13) ("second specimens") and StLN were retrieved from our database. Tumor location, size, pT, and distance to closest margin (D) in the wedge specimens were compared with the presence of residual and/or additional tumor nodules in the lung and metastatic tumor in N1 lymph nodes of the "second specimens." RESULTS: Residual tumor (n = 14), additional tumor nodules (n = 9), and both (n = 1) were present in the lung parenchyma of 24 "second specimens." Problems orienting residual tumor to tumor in the wedge made it difficult to accurately determine overall tumor size and final pT in some cases. In 10 of the 241 cases, metastatic tumor was present only in N1 lymph nodes in the "second specimen." CONCLUSIONS: Sublobar resections with StLN would have potentially

understaged 19 (7.9%) of 241 patients (9 as pT1 or pT2 instead of pT3, 9 as pN0 instead of pN1, and 1 as pT1N0 instead of pT3N1). Preoperative positron emission tomography/computed tomography suggested the presence of more than 1 parenchymal tumor nodule and/or metastatic tumor in N1 lymph nodes of the “second specimen” in only 5 of these cases. Sublobar resections may miss additional tumor nodules and positive lymph nodes and understage a small proportion of pulmonary adenocarcinoma patients.

[530]

TÍTULO / TITLE: - Current readings: sublobar resection for non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Semin Thorac Cardiovasc Surg. 2013 Spring;25(1):22-9. doi: 10.1053/j.semtcvs.2013.01.005.

●● Enlace al texto completo (gratis o de pago)

[1053/j.semtcvs.2013.01.005](#)

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RESUMEN / SUMMARY: - The Lung Cancer Study Group consensus recommending lobectomy for stage I non-small-cell lung cancer (NSCLC) to reduce local recurrence associated with sublobar resections has directed NSCLC care since its 1995 publication. However, enhancements in imaging technology and in our understanding of the molecular biology of NSCLC over the past 2 decades have produced large cohorts of patients with smaller, better staged, and more indolent tumors than evaluated by the Lung Cancer Study Group. Numerous single-institution trials have demonstrated that in well-selected patients, sublobar resection can afford comparable survival and recurrence rates with lobectomy with a more favorable risk profile. This review of recent literature will focus on 2 separate issues with regard to the use of sublobar resections for stage I NSCLC: (1) a comparison to nonoperative ablative therapies in medically unfit patients, and (2) identifying in which subset of the noncompromised standard-risk population, sublobar resections provide equivalent outcome to lobectomy.

[531]

TÍTULO / TITLE: - Chemotherapy and late course three dimensional conformal radiotherapy for treatment of patients with stage III non- small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(4):2663-5.

AUTORES / AUTHORS: - Liu YC; Zhou SB; Gao F; Ye HX; Zhao Y; Yi XX; Huang XE; Xiang J

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, The People Hospital of Taixing City, Taixing, China.

RESUMEN / SUMMARY: - **OBJECTIVE:** To compare the efficacy and complications of chemotherapy and late course three-dimensional conformal radiotherapy (3DCRT) in treating patients with stage III non-small cell lung cancer (NSCLC). **PATIENTS AND METHODS:** All patients were divided into two groups: to receive chemotherapy and late course 3DCRT (3DCRT group), or chemotherapy and conventional fraction radiation (control group). In the 3DCRT-group, patients were given 6~15 MV X-rays with a total dose of 40 Gy, followed by 3DCRT, 2.5 Gy~3.0 Gy per fraction, 1 fraction/ every day, total 68 Gy~70 Gy; in the control group, with conventional fraction radiation the total dose was 64~66 Gy. The chemotherapy regimen in both cases was EP (VP-16 and DDP). **RESULTS:** Sixty four patients with stage III NSCLC were divided into two groups: 32 patients into 3DCRT, 32 into the control group. One and 2-year survival rates in 3DCRT and control group were 87.5%, 56.3% and 65.6%, 34.4%, respectively (P<0.05); local control rates were 90.6%, 81.3% and 65.6%, 53.1%, respectively (P<0.05). **CONCLUSION:** Chemotherapy and late course 3DCRT is associated with improved survival rate in patients with stage III NSCLC with good tolerability.

[532]

TÍTULO / TITLE: - Niclosamide overcomes acquired resistance to erlotinib through suppression of STAT3 in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Cancer Ther. 2013 Jul 26.

- [Enlace al texto completo \(gratis o de pago\) 1158/1535-7163.MCT-13-0095](#)

AUTORES / AUTHORS: - Li R; Hu Z; Sun SY; Chen ZG; Owonikoko TK; Sica GL; Ramalingam SS; Curran WJ; Khuri FR; Deng X

INSTITUCIÓN / INSTITUTION: - 1Radiation Oncology, Emory University School of Medicine.

RESUMEN / SUMMARY: - The emergence of resistance to epidermal growth factor receptor (EGFR) inhibitor therapy is a major clinical problem for patients with non-small cell lung cancer (NSCLC). The mechanisms underlying tumor resistance to inhibitors of the kinase activity of EGFR are not fully understood. Here we found that inhibition of EGFR by erlotinib induces STAT3 phosphorylation at Tyr705 in association with increased Bcl2/Bcl-XL at both mRNA and protein levels in various human lung cancer cells. PTPMeg2 is a physiologic STAT3 phosphatase that can directly dephosphorylate STAT3 at the Tyr705 site. Intriguingly, treatment of cells with erlotinib results in downregulation of PTPMeg2 without activation of STAT3 kinases (i.e. JAK2 or

c-Src), suggesting that erlotinib enhanced phosphorylation of STAT3 may occur, at least in part, from suppression of PTPMeg2 expression. Since elevated levels of phosphorylated STAT3 (pSTAT3), Bcl2 and Bcl-XL were observed in erlotinib-resistant lung cancer (HCC827/ER) cells as compared to erlotinib-sensitive parental HCC827 cells, we postulate that erlotinib-activated STAT3/Bcl2/Bcl-XL survival pathway may contribute to acquired resistance to erlotinib. Both blockage of Tyr705 phosphorylation of STAT3 by niclosamide and depletion of STAT3 by RNA interference in HCC827/ER cells reverses erlotinib resistance. Niclosamide in combination with erlotinib potentially represses erlotinib-resistant lung cancer xenografts in association with increased apoptosis in tumor tissues, suggesting that niclosamide can restore sensitivity to erlotinib. These findings uncover a novel mechanism of erlotinib resistance and provide a novel approach to overcome resistance by blocking the STAT3/Bcl2/Bcl-XL survival signaling pathway in human lung cancer.

[533]

TÍTULO / TITLE: - The influence of social factors on help-seeking for people with lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Cancer Care (Engl). 2013 Jun 4. doi: 10.1111/ecc.12078.

●● [Enlace al texto completo \(gratis o de pago\) 1111/ecc.12078](#)

AUTORES / AUTHORS: - Chatwin J; Sanders C

INSTITUCIÓN / INSTITUTION: - Centre for Primary Care, Institute of Population Health, University of Manchester, Manchester, UK.

RESUMEN / SUMMARY: - While there has been no clear consensus on the potential for earlier diagnosis of lung cancer, recent research has suggested that the time between symptom onset and consultation can be long enough to plausibly affect prognosis. In this article, we present a review of the literature concerning help-seeking delays in lung cancer presentation, and more specifically, the role and influence that social factors may play in determining when and how people decide to seek medical help. We also consider how these factors contribute to patients' understanding of symptoms and illness indicators. We suggest that while there is research highlighting the importance of psychosocial influences on the general help-seeking behaviour of people with concerns about cancer, existing studies are mainly retrospective, and very little work has focused on identifying triggers and barriers specific to lung cancer. Further, we propose that while there have been a number of recent initiatives to raise awareness of the early signs of lung cancer, aimed at both patients and health professionals, little information provision has been targeted specifically at the formal and informal network level. This may be a useful avenue to pursue in future initiatives.

[534]

TÍTULO / TITLE: - Enhanced antitumor activity of erlotinib in combination with the Hsp90 inhibitor CH5164840 against non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Sci. 2013 Jul 17. doi: 10.1111/cas.12237.

●● [Enlace al texto completo \(gratis o de pago\) 1111/cas.12237](#)

AUTORES / AUTHORS: - Ono N; Yamazaki T; Tsukaguchi T; Fujii T; Sakata K; Suda A; Tsukuda T; Mio T; Ishii N; Kondoh O; Aoki Y

INSTITUCIÓN / INSTITUTION: - Discovery Pharmacology Department 2.

RESUMEN / SUMMARY: - The inhibition of heat shock protein 90 (Hsp90) can lead to degradation of multiple client proteins, which are involved in tumor progression. Epidermal growth factor receptor (EGFR) is one of the most potent oncogenic client proteins of Hsp90. Targeted inhibition of EGFR has shown clinical efficacy in the treatment of patients with non-small cell lung cancer (NSCLC). However, primary and acquired resistance to the existing EGFR inhibitors is a major clinical problem. In this study, we investigated the effect of the novel Hsp90 inhibitor CH5164840 on the antitumor activity of erlotinib. NSCLC cell lines and xenograft models were treated with CH5164840 and erlotinib to examine their mechanisms of action and cell growth inhibition. We found that CH5164840 showed remarkable antitumor activity against NSCLC cell lines and xenograft models. The addition of CH5164840 enhanced the antitumor activity of erlotinib against NCI-H292 EGFR-overexpressing xenograft models. Phosphorylation of Stat3 was increased by erlotinib treatment in NCI-H292 cells, which was abrogated by Hsp90 inhibition. Furthermore, in an NCI-H1975 T790M mutation erlotinib-resistant model, CH5164840 enhanced the antitumor activity of erlotinib, despite the low efficacy of erlotinib treatment alone. In addition, ERK signaling was effectively suppressed by combination treatment with erlotinib and CH5164840 in an NCI-H1975 erlotinib-resistant model. Taken together, these data indicate that CH5164840 has potent antitumor activity, and is highly effective in combination with erlotinib against NSCLC tumors with EGFR overexpression and mutations. Our results support the therapeutic potential of CH5164840 as an Hsp90 inhibitor for combination therapy with EGFR-targeting agents against EGFR-addicted NSCLC. This article is protected by copyright. All rights reserved.

[535]

TÍTULO / TITLE: - Disseminated typical bronchial carcinoid tumor.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Vojnosanit Pregl. 2013 May;70(5):516-21.

AUTORES / AUTHORS: - Novkovic D; Skuletic V; Vukovic J; Cerovic S; Tomic I; Karlicic V; Stojisavljevic M

INSTITUCIÓN / INSTITUTION: - Clinic for Lung Diseases, Military Medical Academy, Belgrade, Serbia. dobrivojenovkovic@yahoo.com

RESUMEN / SUMMARY: - INTRODUCTION: Bronchial carcinoids belong to a rare type of lung tumors. If they do not expose outstanding neuroendocrine activity, they develop without clearly visible symptoms. They are often detected during a routine examination. According to their clinical pathological features, they are divided into typical and atypical tumors. Typical bronchial carcinoids metastasize to distant organs very rarely. Localized forms are effectively treated by surgery. The methods of conservative treatment should be applied in other cases. CASE REPORT: We presented a 65-year-old patient with carcinoid lung tumor detected by a routine examination. Additional analysis (chest X-ray, computed tomography of the chest, ultrasound of the abdomen, skeletal scintigraphy, bronchoscopy, histopathological analysis of the bioptate of bronchial tumor, as well as bronchial brushing cytology and immunohistochemical staining performed with markers specific for neuroendocrine tumor) proved a morphologically typical lung carcinoid with dissemination to the liver and skeletal system, which is very rarely found in typical carcinoids. CONCLUSION: The presented case with carcinoid used to be showed morphological and pathohistological characteristics of typical bronchial carcinoid. With its metastasis to the liver and skeletal system it demonstrated unusual clinical course that used to be considered as rare phenomenon. Due to its frequent asymptomatic course and varied manifestation, bronchial carcinoid could be considered as a diagnostic challenge requiring a multidisciplinary approach.

[536]

TÍTULO / TITLE: - Novel Targets in Non-Small Cell Lung Cancer: ROS1 and RET Fusions.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncologist. 2013;18(7):865-75. doi: 10.1634/theoncologist.2013-0095. Epub 2013 Jun 28.

●● Enlace al texto completo (gratis o de pago)

[1634/theoncologist.2013-0095](#)

AUTORES / AUTHORS: - Gainor JF; Shaw AT

INSTITUCIÓN / INSTITUTION: - Department of Medicine, Massachusetts General Hospital Cancer Center, Boston, Massachusetts, USA.

RESUMEN / SUMMARY: - The discovery of chromosomal rearrangements involving the anaplastic lymphoma kinase (ALK) gene in non-small cell lung cancer (NSCLC) has stimulated renewed interest in oncogenic fusions as potential therapeutic targets. Recently, genetic alterations in ROS1 and RET were identified in patients with NSCLC. Like ALK, genetic alterations in ROS1 and RET involve chromosomal rearrangements that result in the formation of chimeric fusion kinases capable of oncogenic transformation. Notably, ROS1

and RET rearrangements are rarely found with other genetic alterations, such as EGFR, KRAS, or ALK. This finding suggests that both ROS1 and RET are independent oncogenic drivers that may be viable therapeutic targets. In initial screening studies, ROS1 and RET rearrangements were identified at similar frequencies (approximately 1%-2%), using a variety of genotyping techniques. Importantly, patients with either ROS1 or RET rearrangements appear to have unique clinical and pathologic features that may facilitate identification and enrichment strategies. These features may in turn expedite enrollment in clinical trials evaluating genotype-directed therapies in these rare patient populations. In this review, we summarize the molecular biology, clinical features, detection, and targeting of ROS1 and RET rearrangements in NSCLC.

[537]

TÍTULO / TITLE: - Genomics of squamous cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncologist. 2013;18(6):707-16. doi: 10.1634/theoncologist.2013-0063. Epub 2013 May 31.

●● Enlace al texto completo (gratis o de pago)

[1634/theoncologist.2013-0063](#)

AUTORES / AUTHORS: - Rooney M; Devarakonda S; Govindan R

INSTITUCIÓN / INSTITUTION: - Division of Oncology, Department of Medicine and

RESUMEN / SUMMARY: - Approximately 30% of patients with non-small cell lung cancer have the squamous cell carcinoma (SQCC) histological subtype. Although targeted therapies have improved outcomes in patients with adenocarcinoma, no agents are currently approved specifically for use in SQCC. The Cancer Genome Atlas (TCGA) recently published the results of comprehensive genomic analyses of tumor samples from 178 patients with SQCC of the lung. In this review, we briefly discuss key molecular aberrations reported by TCGA and other investigators and their potential therapeutic implications. Carefully designed preclinical and clinical studies based on these large-scale genomic analyses are critical to improve the outcomes of patients with SQCC of lung in the near future.

[538]

TÍTULO / TITLE: - Association between a rare novel TP53 variant (rs78378222) and melanoma, squamous cell carcinoma of head and neck and lung cancer susceptibility in non-Hispanic Whites.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cell Mol Med. 2013 Jul;17(7):873-8. doi: 10.1111/jcmm.12076. Epub 2013 Jun 7.

●● Enlace al texto completo (gratis o de pago) [1111/jcmm.12076](#)

AUTORES / AUTHORS: - Guan X; Wang LE; Liu Z; Sturgis EM; Wei Q

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Jinling Hospital, Medical School of Nanjing University, Nanjing, China; Department of Epidemiology, The University of Texas MD Anderson Cancer Center, Houston, TX, USA.

RESUMEN / SUMMARY: - Recently, several studies have investigated the association between a newly reported rare functional single nucleotide polymorphism (SNP) in TP53 (rs78378222) and cancer risk, but generated inconsistent findings. The present study further investigated this association with risk of melanoma, squamous cell carcinoma of head and neck (SCCHN) and lung cancer. Using volunteers of non-Hispanic Whites recruited for three large case-control studies, we genotyped the TP53 rs78378222 SNP in 1329 patients with melanoma, 1096 with SCCHN, 1013 with lung cancer and 3000 cancer-free controls. Overall, we did not observe any variant homozygotes in this study population, nor significant associations between the TP53 rs78378222AC genotype or C allele and risk for melanoma ($P = 0.680$ and 0.682 respectively) and lung cancer ($P = 0.379$ and 0.382 respectively), but a protection against SCCHN ($P = 0.008$ and 0.008 respectively), compared with the AA genotype or A allele. An additional meta-analysis including 19,423 cancer patients and 54,050 controls did not support such a risk association either. Our studies did not provide statistical evidence of an association between this rare TP53 variant and increased risk of melanoma, nor of lung cancer, but a possible protection against SCCHN.

[539]

TÍTULO / TITLE: - beta-blockers and metastasis in non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Expert Rev Anticancer Ther. 2013 Jun;13(6):641-3. doi: 10.1586/era.13.53.

●● Enlace al texto completo (gratis o de pago) [1586/era.13.53](#)

AUTORES / AUTHORS: - Wang H; Gomez DR; Liao Z

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[540]

TÍTULO / TITLE: - Pulmonary neuroendocrine tumors with nuclear inclusion.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pathol Res Pract. 2013 Jul 8. pii: S0344-0338(13)00178-7. doi: 10.1016/j.prp.2013.06.016.

●● Enlace al texto completo (gratis o de pago) [1016/j.prp.2013.06.016](#)

AUTORES / AUTHORS: - Kobayashi S; Tsuta K; Sekine S; Yoshida A; Sasaki N; Shibuki Y; Sakurai H; Watanabe SI; Asamura H; Tsuda H

INSTITUCIÓN / INSTITUTION: - Division of Pathology and Clinical Laboratories, National Cancer Center Hospital, Tokyo, Japan.

RESUMEN / SUMMARY: - Nuclear inclusion or pseudoinclusion is a peculiar cytological feature, and its recognition in appropriate clinicopathological settings can aid in the diagnosis of several disease entities. To the best of our knowledge, only 1 case of pulmonary neuroendocrine tumor (NET) with nuclear pseudoinclusion has been reported. A review of 227 patients who had undergone surgical resection for pulmonary NETs revealed 2 tumors with different mechanisms of nuclear inclusion. To explore the cause of nuclear inclusion, NET with nuclear inclusion was characterized immunohistochemically and ultrastructurally. Nuclear inclusions were observed in 2 of the 227 (0.9%) patients with pulmonary NETs. The first patient was a 46-year-old woman with small cell carcinoma. Tumor cells with nuclear inclusions were distributed focally. Ultrastructural analysis showed that these inclusions were pseudoinclusions. The second patient was a 62-year-old man with large-cell neuroendocrine carcinoma. Nuclear inclusions were observed in the focal area of the tumor. Immunohistochemical analysis revealed that the intra-nuclear materials consisted of biotin and aberrant cytoplasmic and nuclear accumulation of beta-catenin. Mutational analysis revealed a CTNNB1 gene mutation. Although very rare, diagnostic errors may be observed in cases of pulmonary NETs with nuclear inclusions. The mechanisms of nuclear inclusion differed, with one due to herniation of the cytoplasm into the nucleus (pseudoinclusion) and the other due to accumulation of biotin resulting from a CTNNB1 gene mutation.

[541]

TÍTULO / TITLE: - Bioinformatics analyses combined microarray identify the desregulated microRNAs in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur Rev Med Pharmacol Sci. 2013 Jun;17(11):1509-16.

AUTORES / AUTHORS: - Guo WG; Zhang Y; Ge D; Zhang YX; Lu CL; Wang Q; Fan H

INSTITUCIÓN / INSTITUTION: - Departments of Thoracic Surgery, Zhongshan Hospital, Fudan University, Shanghai, China.

RESUMEN / SUMMARY: - BACKGROUND: MicroRNAs (miRNAs) play an important role in the regulation of cell growth, differentiation, apoptosis, and carcinogenesis. Deregulated miRNAs are found in blood cells of cancer patients recently. AIM: This study aims to screen the differentially expressed miRNAs (DE-miRNAs) which could discriminate lung cancers from non-cancerous lung tissues as well as molecular signatures that differ in tumor histology. MATERIALS AND METHODS: miRNA expression profiles of GSE17681 was downloaded from Gene Expression Omnibus database. Three test methods were used to identify DE-miRNAs between lung cancer tissue and healthy

controls. Target genes of DE-miRNAs were retrieved from three databases and mapped to KEGG to investigate their roles in lung cancer. Further, a protein-protein interaction (PPI) network was constructed used STRING and Cytoscape. RESULTS: A total of 17 DE-miRNAs were identified. Among them, hsa-miR-339-5p draw specific attention. Pathway analysis revealed that target genes of RASSF1 and KRAS play roles as oncogene or tumor suppressor gene in the progression of lung cancer. Besides, Target genes of RASSF1 and ERBB4 formed a module in the PPI network. Functional analysis suggested biological process of response to hypoxia was significantly enriched. CONCLUSIONS: hsa-miR-339-5p play important role in the regulation of lung cancer and it may be potential to be used as biomarker to predict lung cancer progression.

[542]

TÍTULO / TITLE: - New targets in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Curr Oncol Rep. 2013 Aug;15(4):411-23. doi: 10.1007/s11912-013-0326-4.

●● Enlace al texto completo (gratis o de pago) [1007/s11912-013-0326-](#)

[4](#)

AUTORES / AUTHORS: - Gadgeel SM

INSTITUCIÓN / INSTITUTION: - Department of Oncology, Wayne State University, Detroit, MI, USA, gadgeels@karmanos.org.

RESUMEN / SUMMARY: - Lung cancer remains the most common cause of cancer-related death in the United States. At presentation, the majority of patients have regional or systemic metastases and therefore require systemic therapy. For years, chemotherapy was the only systemic therapy option. A major paradigm shift has occurred in recent years with the identification of driver genetic alterations in some non-small cell lung cancers (NSCLCs). It is part of current standard of care to assess epidermal growth factor receptor (EGFR) mutations and anaplastic lymphoma kinase (ALK) translocations in tumors of patients with advanced NSCLC. Drugs targeting these mutations provide significant clinical benefit and are the preferred therapeutic option in these patients. Ongoing clinical trials are assessing the clinical benefit from targeting other driver genetic alterations. Further therapeutic targets have been identified through greater understanding of the variety of molecular processes that facilitate tumor formation and progression. Some of these new therapeutic targets are heat shock proteins and targets that can allow enhanced anti-tumor immune response. It is expected that these advances will allow personalized management of NSCLC patients and move us away from approaching all NSCLC patients with the same therapeutic tools.

[543]

TÍTULO / TITLE: - Antitumor Impact of p14ARF on Gefitinib-Resistant Non-Small Cell Lung Cancers.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Cancer Ther. 2013 Aug 1.

●● Enlace al texto completo (gratis o de pago) [1158/1535-7163.MCT-12-1239](#)

AUTORES / AUTHORS: - Saito K; Takigawa N; Ohtani N; Iioka H; Tomita Y; Ueda R; Fukuoka J; Kuwahara K; Ichihara E; Kiura K; Kondo E

INSTITUCIÓN / INSTITUTION: - Authors' Affiliations: 1Division of Oncological Pathology, Aichi Cancer Center Research Institute, Chikusa-ku; 2Department of Medical Oncology and Immunology, Nagoya City University Graduate School of Medical Science, Mizuhocho, Mizuho-ku; 3Department of Epidemiology, Nagoya University Graduate School of Medicine, Showa-ku, Nagoya; 4Department of General Internal Medicine 4, Kawasaki Medical School; 5Department of Respiratory Medicine, Okayama University Hospital, Kita-ku, Okayama; 6Division of Cancer Biology, The Cancer Institute of Japanese Foundation for Cancer Research (JFCR), Tokyo; 7Advanced Medical Research Center; 8Department of Tumor Immunology, Aichi Medical University School of Medicine, Nagakute, Aichi; 9Department of Surgical Pathology, Toyama University Hospital, Toyama; and 10Department of Immunology, Graduate School of Medical Sciences, Kumamoto University, Chuo-ku, Kumamoto, Japan.

RESUMEN / SUMMARY: - Activation of the epidermal growth factor receptor (EGFR) has been observed in many malignant tumors and its constitutive signal transduction facilitates the proliferation of tumors. EGFR-tyrosine kinase inhibitors, such as gefitinib, are widely used as a molecular-targeting agent for the inactivation of EGFR signaling and show considerable therapeutic effect in non-small cell lung cancers harboring activating EGFR mutations. However, prolonged treatment inevitably produces tumors with additional gefitinib-resistant mutations in EGFR, which is a critical issue for current therapeutics. We aimed to characterize the distinct molecular response to gefitinib between the drug-resistant and drug-sensitive lung adenocarcinoma cells in order to learn about therapeutics based on the molecular information. From the quantitative PCR analysis, we found a specific increase in p14ARF expression in gefitinib-sensitive lung adenocarcinoma clones, which was absent in gefitinib-resistant clones. Moreover, mitochondria-targeted p14ARF triggered the most augmented apoptosis in both clones. We identified the amino acid residues spanning from 38 to 65 as a functional core of mitochondrial p14ARF (p14 38-65 a.a.), which reduced the mitochondrial membrane potential and caused caspase-9 activation. The synthesized peptide covering the p14 38-65 a.a. induced growth suppression of the gefitinib-resistant clones without affecting nonneoplastic cells. Notably, transduction of the minimized dose of the p14 38-65 peptide restored the response to gefitinib like that in the sensitive clones.

These findings suggest that the region of p14ARF 38-65 a.a. is critical in the pharmacologic action of gefitinib against EGFR-mutated lung adenocarcinoma cells and has potential utility in the therapeutics of gefitinib-resistant cancers. Mol Cancer Ther; 12(8); 1-13. ©2013 AACR.

[544]

TÍTULO / TITLE: - Patients Treated With Platinum-Doublet Chemotherapy for Advanced Non-small-cell Lung Cancer Have Inferior Outcomes If Previously Treated With Platinum-based Chemoradiation.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jun 20. pii: S1525-7304(13)00068-5. doi: 10.1016/j.clcc.2013.03.007.

●● Enlace al texto completo (gratis o de pago) 1016/j.clcc.2013.03.007

AUTORES / AUTHORS: - Paramanathan A; Solomon B; Collins M; Franco M; Kofoed S; Francis H; Ball D; Mileskin L

INSTITUCIÓN / INSTITUTION: - Sir Peter MacCallum Department of Oncology, University of Melbourne, Parkville.

RESUMEN / SUMMARY: - INTRODUCTION: The standard of care for locoregionally advanced non-small-cell lung cancer is concurrent platinum-based chemoradiation. Many patients relapse, and subsequent systemic treatment may involve platinum-doublet chemotherapy. It is not known if prior platinum-based chemoradiation influences the response to platinum-based chemotherapy given subsequently for relapse. Therefore, we compared outcomes in these patients with those in patients without prior treatment. METHODS: A retrospective study of patients who had been treated with carboplatin and gemcitabine chemotherapy for de novo metastatic disease or recurrent non-small-cell lung cancer after receiving platinum-based chemoradiation. The primary outcome was progression-free survival (PFS). RESULTS: A total of 104 patients were analyzed. The median age was 63 years (range, 35-81 years), with 63 (61%) patients with newly diagnosed disease and with 41 (39%) who were previously treated. The response rate was significantly lower for those previously exposed to chemoradiation (10% vs. 29%; P = .001), as was the median PFS (3.6 months vs. 5.7 months; P = .002), and median overall survival (OS) (8.6 months vs. 12.1 months; P = .007). Only the treatment group was a significant predictor (P = .032) of PFS by univariate analysis. In univariate analysis; sex (men; P = .04), histology (squamous cell; P = .04), Eastern Cooperative Oncology Group Performance Status Scale (P = .002), and treatment group (P = .023) predicted significantly inferior OS. Multivariate analysis showed that performance status was the only significant predictor of inferior OS. CONCLUSION: Outcomes were inferior in patients previously exposed to platinum-based chemoradiation. An approach of stratifying such patients in future trials of chemotherapy should be adopted.

Alternative options such as non-platinum-based agents or targeted therapies should be considered in this group.

[545]

TÍTULO / TITLE: - The Efficacy and Safety of Standardized Allergen-Removed Rhus verniciflua Extract as Maintenance Therapy after First-Line Chemotherapy in Patients with Advanced Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Chin Med. 2013;41(4):773-87. doi: 10.1142/S0192415X13500523.

●● Enlace al texto completo (gratis o de pago)

[1142/S0192415X13500523](#)

AUTORES / AUTHORS: - Lee J; Chae J; Lee S; Kim K; Eo W; Kim S; Choi W; Cheon SH

INSTITUCIÓN / INSTITUTION: - Department of Clinical Korean Medicine, College of Korean Medicine, Kyung Hee University, Seoul, Korea.

RESUMEN / SUMMARY: - Chemotherapy improves the survival of patients with advanced non-small cell lung cancer (NSCLC), but tumor progression is often inevitable. Strategies are needed to improve the therapeutic efficacy of chemotherapy. Over recent years, there has been increasing interest in the role of maintenance therapy after first-line chemotherapy. We investigated the efficacy and safety of standardized allergen-removed Rhus verniciflua Stokes extract (aRVS) as maintenance therapy in patients with non-progressive disease following first-line chemotherapy. We reviewed the medical records of 33 patients with advanced NSCLC, who started treatment with aRVS in a state of tumor regression or stable disease after completion of four or six cycles of induction chemotherapy at the Integrative Cancer Center, Kyung Hee University Hospital at Gangdong from June 2006 to April 2012. The primary objective of this study was progression-free survival (PFS) of aRVS as maintenance therapy. Secondary objectives included assessments of disease control rate (DCR), overall survival (OS), and the safety of aRVS treatment. The median PFS was 5.2 months with a 6- and 12-month PFS rate of 40.6% and 12.9%, respectively. The DCR was 93.9% and the median OS was 34.8 months. The overall survival rates at 12, 24, and 36 months were 84.2%, 76.7% and 49.9%, respectively. We observed no hematologic toxicity, nephrotoxicity, or hepatotoxicity during aRVS treatment. In conclusion, maintenance therapy with aRVS for patients with advanced NSCLC is well-tolerated and offers encouraging improved PFS and OS compared with historical controls. Our data provide further evidence that aRVS may be used beyond disease progression in this clinical setting.

[546]

TÍTULO / TITLE: - A Case Series of Lengthy Progression-Free Survival With Pemetrexed-Containing Therapy in Metastatic Non-Small-Cell Lung Cancer Patients Harboring ROS1 Gene Rearrangements.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jun 27. pii: S1525-7304(13)00075-2. doi: 10.1016/j.clcc.2013.04.008.

●● Enlace al texto completo (gratis o de pago) [1016/j.clcc.2013.04.008](http://dx.doi.org/10.1016/j.clcc.2013.04.008)

AUTORES / AUTHORS: - Riess JW; Padda SK; Bangs CD; Das M; Neal JW; Adrouny AR; Cherry A; Wakelee HA

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[547]

TÍTULO / TITLE: - Bridging the clinical gaps: genetic, epigenetic and transcriptomic biomarkers for the early detection of lung cancer in the post-National Lung Screening Trial era.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - BMC Med. 2013 Jul 19;11:168. doi: 10.1186/1741-7015-11-168.

●● Enlace al texto completo (gratis o de pago) [1186/1741-7015-11-168](http://dx.doi.org/10.1186/1741-7015-11-168)

AUTORES / AUTHORS: - Brothers JF; Hijazi K; Mascaux C; El-Zein RA; Spitz MR; Spira A

INSTITUCIÓN / INSTITUTION: - Bioinformatics Program, Boston University, Boston, MA, USA. jb2@bu.edu.

RESUMEN / SUMMARY: - Lung cancer is the leading cause of cancer death worldwide in part due to our inability to identify which smokers are at highest risk and the lack of effective tools to detect the disease at its earliest and potentially curable stage. Recent results from the National Lung Screening Trial have shown that annual screening of high-risk smokers with low-dose helical computed tomography of the chest can reduce lung cancer mortality. However, molecular biomarkers are needed to identify which current and former smokers would benefit most from annual computed tomography scan screening in order to reduce the costs and morbidity associated with this procedure. Additionally, there is an urgent clinical need to develop biomarkers that can distinguish benign from malignant lesions found on computed tomography of the chest given its very high false positive rate. This review highlights recent genetic, transcriptomic and epigenomic biomarkers that are emerging as tools for the early detection of lung cancer both in the diagnostic and screening setting.

[548]

TÍTULO / TITLE: - Stereotactic body radiation therapy in stage I inoperable lung cancer: from palliative to curative options.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Swiss Med Wkly. 2013 May 28;143:w13780. doi: 10.4414/smw.2013.13780.

●● Enlace al texto completo (gratis o de pago) 4414/smw.2013.13780

AUTORES / AUTHORS: - Boujelbene N; Elloumi F; Kamel ME; Abeidi H; Matzinger O; Mirimanoff RO; Khanfir K

INSTITUCIÓN / INSTITUTION: - Service de radio-oncologie, Centre Hospitalier Universitaire Habib Bourguiba, Sfax, Tunisia; Service de radio-oncologie, Centre Hospitalier Universitaire Vaudois (CHUV), Lausanne, Switzerland; Service de radio-oncologie, Departement Valaisan d'Oncologie, Hopital de Sion-CHCVs-RSV, Sion, Switzerland. nboujelbene@gmail.com

RESUMEN / SUMMARY: - Surgery has historically been the standard of care for operable stage I non-small cell lung cancer (NSCLC). However, nearly one-quarter of patients with stage I NSCLC will not undergo surgery because of medical comorbidity or other factors. Stereotactic ablative radiotherapy (SABR) is the new standard of care for these patients. SABR offers high local tumour control rates rivalling the historical results of surgery and is generally well tolerated by patients with both peripheral and centrally located tumours. This article reviews the history of SABR for stage I NSCLC, summarises the currently available data on efficacy and toxicity, and describes some of the currently controversial aspects of this treatment.

[549]

TÍTULO / TITLE: - Suggestion for a new grading scale for radiation induced pneumonitis based on radiological findings of computerized tomography: correlation with clinical and radiotherapeutic parameters in lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):2717-22.

AUTORES / AUTHORS: - Kouloulis V; Zygogianni A; Efstathopoulos E; Victoria O; Christos A; Pantelis K; Koutoulidis V; Kouvaris J; Sandilos P; Varela M; Aytas I; Gouliamos A; Kelekis N

INSTITUCIÓN / INSTITUTION: - 2nd Radiology Department, Medical School, Kapodistrian University of Athens, Athens, Greece E-mail : vkouloul@ece.ntua.gr.

RESUMEN / SUMMARY: - Background: The objective of this research is the computed axial tomography (CT) imaging grading of radiation induced pneumonitis (RP) and its correlation with clinical and radiotherapeutic parameters. Materials and Methods: The chest CT films of 20 patients with non-small cell lung cancer who have undergone three-dimensional conformal radiation therapy were reviewed. The proposed CT grading of RP is supported on solely radiological diagnosis criteria and distinguishes five grades. The manifestation of RP was also correlated with any positive pre-existing chronic obstructive pulmonary disease (COPD) history, smoking history, the FEV1 value, and the dosimetric variable V20. Results: The CT grading of RP was as

follows: 3 patients (15%) presented with ground glass opacity (grade 1), 9 patients (45%) were classified as grade 2, 7 patients (35%) presented with focal consolidation, with or without elements of fibrosis (grade 3), and only one patient (5%) presented with opacity with accompanying atelectasis and loss of pulmonary volume (grade 4). Both univariate and multivariate analysis revealed as prognostic factors for the radiological grading of RP the reduction of FEV1 and the V20 (P=0.026 and P=0.003, respectively). There was also a significant (P<0.001) correlation of radiological grading of RP with FEV1 and V20 (spearman rho 0.92 and 0.93, respectively). Conclusions: The high correlation of the proposed radiological grading with the FEV1 and the V20 is giving a satisfactory clinical validity. Although the proposed grading scale seems relevant to clinical practice, further studies are needed for the confirmation of its validity and reliability.

[550]

TÍTULO / TITLE: - mRNA Expression and Clinical Significance of ERCC1, BRCA1, RRM1, TYMS and TUBB3 in Postoperative Patients with Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):2987-90.

AUTORES / AUTHORS: - Han Y; Wang XB; Xiao N; Liu ZD

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Beijing Chest Hospital, Capital Medical University, Beijing, China E-mail : lzdzrd@sina.com.

RESUMEN / SUMMARY: - Background: To explore mRNA expression and clinical significance of ERCC1, BRCA1, RRM1, TYMS and TUBB3 genes in tumor tissue of postoperative patients with non-small cell lung cancer (NSCLC). Materials and Methods: Sixty NSCLC patients undergoing radical operation in our hospital from Nov., 2011 to Jun., 2012 were selected. Plasmid standards of ERCC1, BRCA1, RRM1, TYMS and TUBB3 were established and standard curves were prepared by SYBR fluorescent real-time quantitative PCR analysis. Samples from tumor centers were taken to detect mRNA expression of ERCC1, BRCA1, RRM1, TYMS and TUBB3 genes in cancerous tissue during operation. The total mRNA expression quantities were compared according to different clinical characteristics. Results: The total expression quantities of 5 genotypes from high to low were ERCC1>RRM1>TUBB3>TYMS>BRCA1 in turn. By pairwise comparisons, other differences showed statistical significance (p<0.05 or p<0.01) except for TYMS and TUBB3 (p>0.05); the low expression rates from high to low were ERCC1>TYMS>TUBB3>TUBB3>RRM1>BRCA1 in turn. The expression quantities of BRCA1, RRM1 and TYMS in males, smokers and patients without adenocarcinoma were all significantly higher than that in females, non-smokers and patients with adenocarcinoma, and significant differences were present (p<0.05 or p<0.01). In terms of pathological staging, the expression quantities of BRCA1, RRM1 and TYMS in phases IIa~IIb and

IIIa~IIIb had a tendency to be greater than in phases I and IV. Conclusions: Resistance to chemotherapy and sensitivity to targeted therapy differ among patients with NSCLC. Differences in gene expression in different individuals were also revealed. Only according to personalized detection results can individualized therapeutic regimens be worked out, which is a new direction for oncotherapy.

[551]

TÍTULO / TITLE: - ABO Blood Groups are Not Associated with Treatment Response and Prognosis in Patients with Local Advanced Non- Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(6):3945-8.

AUTORES / AUTHORS: - Unal D; Eroglu C; Kurtul N; Oguz A; Tasdemir A; Kaplan B

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Kayseri Education and Research Hospital, Kayseri, Turkey E-mail : dilekunaldr@gmail.com.

RESUMEN / SUMMARY: - Background: Lung cancer is the leading cause of cancer death, late diagnosis being the main obstacle to improving the outcomes with stage at diagnosis as an important prognostic factor. Relationships between ABO blood groups and risk of benign or malignant diseases have been observed and in this study, we aimed to investigate whether they might affect prognosis and response to chemoradiotherapy in patients with local advanced non-small cell lung cancer (NSCLC). Materials and Methods: Eighty-one patients with non-metastatic local advanced NSCLC were included in the study. ABO blood groups were A in 45 (55.6%), B in 7 (8.6%), AB in 8 (9.9%), and O in 21 (25.9%) patients. The patients were also divided two groups according to blood group A (45 patients) and non-A (B, AB and O; 36 patients). Response to chemoradiotherapy was complete remission in 10 (12.3%), disease regression in 42 (51.9%), stable disease in 12 (14.8%), and disease progression in 17 (21.0%) patients. Results: There was no significant difference among ABO blood group categories or between patients with A blood group and those with non-A blood group in terms of responses to chemoradiotherapy ($p>0.05$). There were also no significant differences regarding overall and disease-free survival rates. Conclusion: The ABO blood group system has no significant effect on prognosis and response to chemoradiotherapy in patients with non-metastatic NSCLC.

[552]

TÍTULO / TITLE: - Solitary intracranial tuberculoma mimicking a malignant tumor in a patient without tubercular lesions or a history of disease: a case report.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Bosn J Basic Med Sci. 2013 May;13(2):129-33.

AUTORES / AUTHORS: - Bustamante-Rengifo JA; Sua LF; Astudillo M; Bravo LE

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RESUMEN / SUMMARY: - Cerebral tuberculoma is a rare cause of intracranial mass. In Latin America and Colombia where tuberculosis is endemic, it represents between 5 and 30% of brain tumours. A 53-year-old Colombian woman was admitted to a third-level hospital in Cali, Colombia, after reporting loss of consciousness, headache, paresthesia, and flight of ideas for a two-week period. Imaging studies showed a left frontal mass of malignant appearance whose first possible diagnosis was metastatic neoplasia or glioma. With the initial results, absence of history of chronic infectious diseases and a history of thyroidectomy, a surgical procedure was carried out and a histopathological and molecular evaluation was conducted. The pathology report noted necrotizing granulomatous inflammation and tissue staining and molecular tests for detection of M. tuberculosis were positive and the patient was managed with anti-tubercular treatment. Intracranial masses are frequently targeted as a malignant neoplastic disease for surgical treatment. Considering an infectious etiology must be a diagnostic option.

[553]

TÍTULO / TITLE: - Long-term results of a randomized controlled trial evaluating preoperative chemotherapy in resectable non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Onco Targets Ther. 2013 Jun 7;6:645-50. doi: 10.2147/OTT.S44503. Print 2013.

●● [Enlace al texto completo \(gratis o de pago\) 2147/OTT.S44503](#)

AUTORES / AUTHORS: - Chen Z; Luo Q; Jian H; Zhou Z; Cheng B; Lu S; Liao M

INSTITUCIÓN / INSTITUTION: - Shanghai Lung Tumor Clinical Medical Center, Shanghai Chest Hospital, Shanghai Jiao Tong University, Shanghai, People's Republic of China.

RESUMEN / SUMMARY: - **OBJECTIVE:** We aimed to evaluate whether preoperative chemotherapy provides benefits in the survival and prognosis of patients with non-small cell lung cancer (NSCLC) in resectable stages I to IIIA, except T1N0. **METHODS:** In this randomized, controlled trial, 356 patients with stage I (except for T1N0), II and IIIA NSCLC were assigned to either the preoperative chemotherapy plus surgery arm (179 patients) or the primary surgery arm (177 patients). Both treatments were followed by adjuvant chemotherapy. The end point of this study included overall survival (OS), progression-free survival (PFS), and survival rate associated with clinical remission. **RESULTS:** Statistical survival difference was found between the

preoperative chemotherapy plus surgery arm and the surgery-alone arm. However, the median survival time (MST) in the preoperative chemotherapy arm was lower than that of surgery-alone arm (MST, 45.42 months vs 57.59 months) (P = 0.016). When comparing the effect of preoperative chemotherapy at each stage of NSCLC, a statistical survival difference was found in stage II NSCLC but not in stage I and IIIA (MST 40.86 months vs 80.81 months) (P = 0.044). However, no statistically significant difference in PFS was noticed between the two arms, except for stage I NSCLC (hazard ratio [HR] = 0.87; 95% CI, 0.561-1.629; P = 0.027). The survival rate was higher for patients who had clinical remission after preoperative chemotherapy, but the differences did not reach statistical significance (MST 42.10 months vs 35.33 months) (P = 0.630). CONCLUSION: Preoperative chemotherapy did not show benefits in OS and PFS for stage I-III NSCLC patients.

[554]

TÍTULO / TITLE: - Three-dimensional computed tomography angiography for the preoperative evaluation of coronary artery disease in lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - World J Surg Oncol. 2013 Jul 20;11:164. doi: 10.1186/1477-7819-11-164.

●● Enlace al texto completo (gratis o de pago) [1186/1477-7819-11-164](#)

AUTORES / AUTHORS: - Watanabe F; Hataji O; Ito K; D'Alessandro-Gabazza CN; Naito M; Morooka H; Gabazza EC; Mizutani Y; Ohi M; Takao M; Shimpo H; Yada I

INSTITUCIÓN / INSTITUTION: - Respiratory Center, Matsusaka Municipal Hospital, Tonomachi 1550, Matsusaka City, Mie 515-8544 Japan.

RESUMEN / SUMMARY: - BACKGROUND: The number of elderly patients undergoing surgery for lung cancer is increasing. In this study, we assessed the usefulness of three-dimensional computed tomographic angiography (3D-CTA) for the detection of coronary disease in the elderly before surgical intervention for lung cancer. METHODS: One hundred twenty patients admitted to our institution for lung cancer resection were enrolled in the study. 3D-CTA was performed in all 120 patients. RESULTS: Seventy-one patients had normal findings, and forty-nine patients showed coronary stenosis on 3D-CTA examination. Among the latter 49 patients, 24 with slight stenosis underwent lung tumor resection, 23 had coronary angiography for severe stenosis before lung surgery and 2 were not eligible for lung resection because of very severe coronary stenosis. The diagnostic value of 3D-CTA was better than conventional CT. CONCLUSIONS: This study suggests the usefulness of 3D-CTA for the preoperative diagnosis of coronary ischemic disease in elderly lung cancer patients.

[555]

TÍTULO / TITLE: - Impact of previous cardiovascular surgery on postoperative morbidity and mortality after major pulmonary resection for non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Langenbecks Arch Surg. 2013 Aug;398(6):903-7. doi: 10.1007/s00423-013-1081-6. Epub 2013 Jun 13.

●● Enlace al texto completo (gratis o de pago) [1007/s00423-013-1081-](#)

[6](#)

AUTORES / AUTHORS: - Senbaklavaci O; Taspinar H; Hartert M; Vahl CF

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RESUMEN / SUMMARY: - **PURPOSE:** The aim of this study was to evaluate the impact of previous cardiovascular surgery on the postoperative morbidity and mortality following major pulmonary resection for non-small cell lung cancer (NSCLC). **METHODS:** Medical records of 227 patients, who underwent major pulmonary resection for NSCLC from 2003 to 2012 at our department, were reviewed retrospectively. Thirty-one patients with a mean age of 65.8 years had previous cardiovascular surgery (group A) including coronary artery revascularization in 11 patients, peripheral arterial revascularization in 6 patients, carotis endarterectomy in 9 patients, and combined coronary artery revascularization and carotis endarterectomy in 5 patients, whereas 167 patients (mean age = 62.0 years) had no cardiovascular comorbidity (group B). Twenty-nine patients with nonsurgically treated cardiovascular comorbidity were excluded from this study. **RESULTS:** There were no significant differences in overall postoperative morbidity (22.6 % in group A vs. 19.2 % in group B) and mortality (no mortality in group A vs. 2.4 % in group B) between both groups. **CONCLUSIONS:** Major pulmonary resections for NSCLC can be performed safely in patients with previous cardiovascular surgical history who are fulfilling the common cardiopulmonary criteria of operability. Operative risk in this subpopulation is comparable to that in patients without cardiovascular comorbidity.

[556]

TÍTULO / TITLE: - An Observational Study of Circulating Tumor Cells and (18)F-FDG PET Uptake in Patients with Treatment-Naive Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jul 5;8(7):e67733. doi: 10.1371/journal.pone.0067733. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0067733](#)

AUTORES / AUTHORS: - Nair VS; Keu KV; Lutgen MS; Kolatkar A; Vasana wala M; Kuschner W; Bethel K; Iagaru AH; Hoh C; Shrager JB; Loo BW Jr; Bazhenova L; Nieva J; Gambhir SS; Kuhn P

INSTITUCIÓN / INSTITUTION: - Division of Pulmonary & Critical Care Medicine, Stanford University School of Medicine, Stanford, California, United States of America.

RESUMEN / SUMMARY: - INTRODUCTION: We investigated the relationship of circulating tumor cells (CTCs) in non-small cell lung cancer (NSCLC) with tumor glucose metabolism as defined by (18)F-fluorodeoxyglucose (FDG) uptake since both have been associated with patient prognosis. MATERIALS & METHODS: We performed a retrospective screen of patients at four medical centers who underwent FDG PET-CT imaging and phlebotomy prior to a therapeutic intervention for NSCLC. We used an Epithelial Cell Adhesion Molecule (EpCAM) independent fluid biopsy based on cell morphology for CTC detection and enumeration (defined here as High Definition CTCs or “HD-CTCs”). We then correlated HD-CTCs with quantitative FDG uptake image data calibrated across centers in a cross-sectional analysis. RESULTS: We assessed seventy-one NSCLC patients whose median tumor size was 2.8 cm (interquartile range, IQR, 2.0-3.6) and median maximum standardized uptake value (SUVmax) was 7.2 (IQR 3.7-15.5). More than 2 HD-CTCs were detected in 63% of patients, whether across all stages (45 of 71) or in stage I disease (27 of 43). HD-CTCs were weakly correlated with partial volume corrected tumor SUVmax ($r = 0.27$, p -value = 0.03) and not correlated with tumor diameter ($r = 0.07$; p -value = 0.60). For a given partial volume corrected SUVmax or tumor diameter there was a wide range of detected HD-CTCs in circulation for both early and late stage disease. CONCLUSIONS: CTCs are detected frequently in early-stage NSCLC using a non-EpCAM mediated approach with a wide range noted for a given level of FDG uptake or tumor size. Integrating potentially complementary biomarkers like these with traditional patient data may eventually enhance our understanding of clinical, in vivo tumor biology in the early stages of this deadly disease.

[557]

TÍTULO / TITLE: - Intrapleural or intraperitoneal lobaplatin for treatment of patients with malignant pleural effusion or ascites.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(4):2611-4.

AUTORES / AUTHORS: - Huang XE; Wei GL; Huo JG; Wang XN; Lu YY; Wu XY; Liu J; Xiang J; Feng JF

INSTITUCIÓN / INSTITUTION: - Department of Chemotherapy, JiangSu Cancer Hospital, Nanjing, Jiangsu, China. huangxinen06@ymail.com

RESUMEN / SUMMARY: - AIMS: To explore efficacy and side effects of intrapleural or intraperitoneal lobaplatin for treating patients with malignant pleural or peritoneal effusions. METHODS: Patients in Jiangsu Cancer Hospital

and Research Institute with cytologically confirmed solid tumors complicated with malignant pleural effusion or ascites were enrolled into this study. Lobaplatin (20-30 mg/m²) was intrapleurally or intraperitoneally infused for patients with malignant pleural effusion or ascites. RESULTS: From 2012 to 2013, intrapleural or intraperitoneal lobaplatin was administered for patients with colorectal or uterus cancer who were previously treated for malignant pleural effusion or ascites. Partial response was achieved for them. Main side effects were nausea/vomiting, and bone marrow suppression. No treatment related deaths occurred. CONCLUSION: Intrapleural or intraperitoneal infusion of lobaplatin is a safe treatment for patients with malignant pleural effusion or ascites, and the treatment efficacy is encouraging.

[558]

TÍTULO / TITLE: - The presence of HER2 exon 20 insertion in patients with central nervous system metastases from non-small lung cancer - a potential application in classification for therapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pneumonol Alergol Pol. 2013;81(4):294-7.

AUTORES / AUTHORS: - Nicos M; Krawczyk P; Mlak R; Sawicki M; Jarosz B; Powrozek T; Milanowski P; Trojanowski T; Milanowski J

INSTITUCIÓN / INSTITUTION: - krapa@poczta.onet.pl.

RESUMEN / SUMMARY: - INTRODUCTION: HER2 (ErbB2/neu) is a member of the ErbB family of four structurally related receptors of tyrosine kinase activity. Overexpression of ErbB-1 (EGFR) and HER2 is found in many human cancers, but the presence of these genes mutations determines the effectiveness of EGFR and HER2 tyrosine kinase inhibitors in the therapy of non-small cell lung cancer (NSCLC). MATERIAL AND METHODS: To search for insertions of the HER2 gene in exon 20 in 150 brain metastases of non-small cell lung cancer patients, we used a PCR technique based on analysis of amplified DNA fragment lengths. We also compared the HER2 mutational status with clinicopathologic features and the presence of EGFR and BRAF mutations. RESULTS: HER2 mutation was present in one male, non-smoking patient with low differentiated adenocarcinoma (0.67% of all patients and 1.5% of patients with adenocarcinoma). The mutations of EGFR and BRAF genes were not found in HER2-mutated patient. CONCLUSIONS: The literature data suggests that patients with HER2 mutations may be sensitive to tyrosine kinase inhibitors of both EGFR and HER2 receptors (e.g. afatinib). Therefore, the identification of new driver mutations in NSCLC can improve the quality of patient care by enabling the use of correct molecularly targeted therapies.

[559]

TÍTULO / TITLE: - Prevalence and Clinical Significance of Incidental and Clinically Suspected Venous Thromboembolism in Lung Cancer Patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 25. pii: S1525-7304(13)00131-9. doi: 10.1016/j.clcc.2013.06.003.

●● Enlace al texto completo (gratis o de pago) 1016/j.clcc.2013.06.003

AUTORES / AUTHORS: - Connolly GC; Menapace L; Safadjou S; Francis CW; Khorana AA

INSTITUCIÓN / INSTITUTION: - Department of Hematology and Oncology, University of Rochester, Rochester, NY. Electronic address: gregory_connolly@urmc.rochester.edu.

RESUMEN / SUMMARY: - BACKGROUND: It is unclear what proportion of VTE events in lung cancer patients are incidentally discovered and whether incidental events affect mortality. PATIENTS AND METHODS: We conducted a retrospective cohort study of lung cancer patients seen at the University of Rochester between January 1, 2006 and December 31, 2008 with the goal of quantifying and characterizing VTE events. Multiple clinical variables and mortality outcomes were compared using Kaplan-Meier survival analysis and multivariate Cox proportional hazards. RESULTS: The study population consisted of 207 subjects with lung cancer. The median age was 66 years and 55% were female (n = 115). Thirty-one patients (14.9%) experienced at least 1 VTE event with 32.2% (10/31) of these incidentally discovered. Incidental events comprised 29.4% (n = 5) of pulmonary embolisms, 11.1% (n = 2) of deep vein thrombosis, and 100% (n = 3) of visceral events. The median survival for patients with incidental VTE was 23.4 months (95% confidence interval [CI], 4.8-32.1) compared with 45.8 months (95% CI, 34.1-56.8) in patients without VTE (HR 2.4; 95% CI, 1.2-4.9; P = .01), but in a subgroup analysis of stage IV patients overall survival was not significantly different (HR, 0.94; P = .33). Patients with clinically suspected VTE had the lowest median survival at 13.1 months (95% CI, 6.4-18.9) which was significantly lower than patients without VTE (HR, 2.7; 95% CI, 1.6-4.5; P = .002), but not significantly different from patients with incidental VTE (HR, 1.2; 95% CI, 0.4-2.0; P = .7). In multivariate analysis, occurrence of VTE (HR, 2.3; 95% CI, 1.3-3.8; P = .002) was significantly associated with mortality when adjusting for age, stage, and histology. CONCLUSIONS: One-third of VTE events in lung cancer patients are incidentally discovered and VTE has negative clinical effect in lung cancer patients.

[560]

TÍTULO / TITLE: - Preliminary experience of CyberKnife treatment of lung metastasis: the question about real clinical benefit.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Med Assoc Thai. 2013 May;96(5):603-13.

AUTORES / AUTHORS: - Swangsilpa T; Yongvithisatid P; Pairat K; Dechsupa P; Dhanachai M; Dangprasert S; Narkwong L; Sitathanee C; Puataweepong P; Puddhikarant P; Jiarpinitnun C; Witoonpanich P; Ruangkanchanasetr R; Ukhumpun T; Khaophon J

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RESUMEN / SUMMARY: - **OBJECTIVE:** Evaluate the effectiveness of radiotherapy plan and physical parameters including local tumor response and clinical outcome of lung metastasis in patients who received CyberKnife treatment at Ramathibodi Hospital. **MATERIAL AND METHOD:** Six cases with twenty lesions of lung metastasis patients were evaluated for tumor response after having received CyberKnife treatment. The prescribed radiation dose was calculated approximately to biological equivalent dose (BED) around 60 to 100 gray (Gyz). The response of each lesion to treatment was evaluated from roentgenographic study during follow-up period along with adverse event, status of patients, and disease. **RESULTS:** At the third month after treatment, roentgenographic partial response (PR, 50% decrease in size) was demonstrated in eight lesions and stable disease (SD, unchanged size) in eight lesions with no complete response (CR, disappearance of tumor) detected. Progressive disease (PD, 25% increase in size) of six treated lesions was detected during the follow-up period. At the time of report, two patients were alive and still received palliative chemotherapy, two patients died from uncontrolled progressive metastases and failed palliative chemotherapy, and two patients lost follow-up after progressive metastases with unknown surviving status. No severe adverse event was observed. The treatment planning parameters demonstrated borderline of radiation dose homogeneity, and conformality coverage of the target volume. **CONCLUSION:** This preliminary report aimed to provide the idea of choosing the appropriate lung metastasis patient to receive CyberKnife treatment that must strictly clarify the real clinical benefit of each selected case to achieve the best outcome from this special treatment procedure.

[561]

TÍTULO / TITLE: - Staging with PET-CT in Patients with Locally Advanced Non Small Cell Lung Cancer is Superior to Conventional Staging Methods in Terms of Survival.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(6):3743-6.

AUTORES / AUTHORS: - Mutlu H; Buyukcelik A; Erden A; Aslan T; Akca Z; Kaya E; Kibar M; Seyrek E; Yavuz S; Calikusu Z

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Acibadem Kayseri Hospital, Kayseri, Turkey E-mail : doktorhasanmutlu@gmail.com.

RESUMEN / SUMMARY: - Background: Of patients with non small cell lung cancer (NSCLC), around one third are locally advanced at the time of diagnosis. Because only a proportion of stage III patients can be cured by surgery, in order to improve the outcomes, sequential or concurrent chemoradiation, or concurrent chemoradiation with induction or consolidation is offered to the patients with locally advanced NSCLC. Today, PET combined with computerized tomography (PET-CT) is accepted as the most sensitive technique for detecting mediastinal lymph node and extracranial metastases from NSCLC. We aimed to compare PET-CT and conventional staging procedures for decisions regarding curative treatment of locally advanced NSCLC. Materials and Methods: A total of 168 consecutive patients were included from Acibadem Kayseri Hospital, Acibadem Adana Hospital and Kayseri Research and Training Hospital in this study. Results: While the median PFS was 13.0+/-1.9 months in the PET-CT group, it was only 6.0+/-0.9 in the others (p<0.001). The median OS values were 20.5+/-15.6 and 11.5+/-1.5 months, respectively (p<0.001). Discussion: As a result, we found that staging with PET CT has better results in terms of survival staging. This superiority leads to survival advantage in patients with locally advanced NSCLC.

[562]

TÍTULO / TITLE: - Secondline chemotherapy versus best supportive care in patient with malignant pleural mesothelioma: a retrospective study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(6):3887-9.

AUTORES / AUTHORS: - Mutlu H; Buyukcelik A; Karaca H; Aksahin A; Berk V; Aslan T; Erden A; Akca Z; Ozkan M

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Acibadem Kayseri Hospital, Kayseri, Turkey E-mail : doktorhasanmutlu@gmail.com.

RESUMEN / SUMMARY: - Introduction: Mesothelioma is a rare neoplasm arising from mesothelial surfaces with the malignant pleural mesothelioma (MPM) as the most common form. Secondline chemotherapy in MPM is still controversial and in this study we evaluated whether it is superior to best supportive care. Materials and Methods: A total of 51 patients with MPM from Acibadem Kayseri Hospital, Kayseri Training and Research Hospital and Erciyes University were analyzed retrospectively. The patients treated with secondline chemotherapies (SLCT) were compared with those treated with best supportive care (BSC) for overall survival. Results: The median overall survival (OS) for firstline chemotherapy?SLCT and firstline chemotherapy?BSC groups were 20.3 and 14.7 months respectively (p=0.079). After firstline chemotherapy the median OS for SLCT and BSC were 5.9 and 4.7 months (p=0.355). Discussion: Although there was a trend for improvement in overall survival in patients treated with secondline chemotherapy, the difference was not statistically significant. Our

results do not support the proposal that secondline chemotherapy could be effective in patients with MPM.

[563]

TÍTULO / TITLE: - Association of genetic dependences between lung cancer and chronic obstructive pulmonary disease.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pneumonol Alergol Pol. 2013;81(4):308-18.

AUTORES / AUTHORS: - Grudny J; Kolakowski J; Kruszewski M; Szopinski J; Sliwinski P; Wiatr E; Winek J; Zaleska J; Zych J; Roszkowski-Sliz K

INSTITUCIÓN / INSTITUTION: - j.grudny@iqichp.edu.pl.

RESUMEN / SUMMARY: - INTRODUCTION: Recent studies have shown an increased risk of lung cancer in patients with bronchial obstructive changes, including patients with COPD. It seems that there are common factors of pathogenesis of both diseases associated with oxidative stress. In the present paper the genes linked to the repair of oxidative damage of DNA, associated with cancer, of iron metabolism and coding proteolytic enzymes were assessed. MATERIAL AND METHODS: The study was conducted in two groups of patients: 53 patients with non-small cell lung cancer and chronic obstructive pulmonary disease, and 54 patients only with chronic obstructive pulmonary disease. The polymorphisms of the single nucleotide were determined in the case of the majority of genes using the PCR-RFLP method. The statistical analysis of quantitative variables was executed using the Mann-Whitney U-test and the test of medians; the analysis of genetic variables was executed using the chi(2) test. RESULTS: Regarding the polymorphisms of genes involved in iron metabolism, statistically significant differences between the two groups have been demonstrated only in the case of haptoglobin gene HP1/2. A higher incidence of form 1/1 was found in patients with COPD and a higher incidence of form 1/2 in patients with lung cancer and COPD. Analysis of gene polymorphisms of proteolytic enzymes and inhibitors of the enzyme gene showed statistically significant differences between the two groups only for the MMP3 gene 6^a/5^a. In the case of the MMP12 gene polymorphism (A-82G) a tendency toward differences in the occurrence of specific alleles was identified. CONCLUSIONS: These results indicate that patients with coincidence of COPD and lung cancer have disorders of the genes involved in iron metabolism, and they have different genetic polymorphisms of proteolytic enzymes comparing to COPD patients.

[564]

TÍTULO / TITLE: - Prediction of Chemotherapeutic Response in Unresectable Non-small-cell Lung Cancer (NSCLC) Patients by 3-(4,5-Dimethylthiazol-2-yl)-5-(3-carboxymethoxyphenyl)-2-(4-sulfophenyl)-2H-tetrazolium (MTS) Assay.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):3057-62.

AUTORES / AUTHORS: - Chen J; Cheng GH; Chen LP; Pang TY; Wang XL

INSTITUCIÓN / INSTITUTION: - Department of Pharmacy, The Affiliated Cancer Hospital of Guangzhou Medical College, Guangzhou, China E-mail : ghcheng661203@126.com.

RESUMEN / SUMMARY: - Background: Selecting chemotherapy regimens guided by chemosensitivity tests can provide individualized therapies for cancer patients. The 3-(4,5-dimethylthiazol-2-yl)-5-(3-carboxymethoxyphenyl)-2-(4-sulfophenyl)-2H-tetrazolium, inner salt (MTS) assay is one in vitro assay which has become widely used to evaluate the sensitivity to anticancer agents. The aim of this study was to evaluate the clinical applicability and accuracy of MTS assay for predicting chemotherapeutic response in unresectable NSCLC patients. Methods: Cancer cells were isolated from malignant pleural effusions of patients by density gradient centrifugation, and their sensitivity to eight chemotherapeutic agents was examined by MTS assay and compared with clinical response. Results: A total of 37 patients participated in this study, and MTS assay produced results successfully in 34 patients (91.9%). The sensitivity rates ranged from 8.8% to 88.2%. Twenty-four of 34 patients who received chemotherapy were evaluated for in vitro-in vivo response analysis. The correlation between in vitro chemosensitivity result and in vivo response was highly significant ($P=0.003$), and the total predictive accuracy, sensitivity, specificity, positive predictive value, and negative predictive value for MTS assay were 87.5%, 94.1%, 71.4%, 88.9%, and 83.3%, respectively. The in vitro sensitivity for CDDP also showed a significant correlation with in vivo response ($P=0.018$, $r=0.522$). Conclusion: MTS assay is a preferable in vitro chemosensitivity assay that could be used to predict the response to chemotherapy and select the appropriate chemotherapy regimens for unresectable NSCLC patients, which could greatly improve therapeutic efficacy and reduce unnecessary adverse effects.

[565]

TÍTULO / TITLE: - The start of chemotherapy until the end of radiotherapy in patients with limited-stage small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Korean J Intern Med. 2013 Jul;28(4):449-55. doi: 10.3904/kjim.2013.28.4.449. Epub 2013 Jul 1.

●● Enlace al texto completo (gratis o de pago)

[3904/kjim.2013.28.4.449](#)

AUTORES / AUTHORS: - Lee KJ; Lee EJ; Hur GY; Lee SY; Kim JH; Shin C; Shim JJ; In KH; Kang KH; Yoo SH; Lee SY

INSTITUCIÓN / INSTITUTION: - Division of Respiratory and Allergy, Department of Internal Medicine, Daejin Medical Center, Seongnam, Korea.

RESUMEN / SUMMARY: - BACKGROUND/AIMS: Chemotherapy combined with radiation therapy is the standard treatment for limited stage small cell lung cancer (LS-SCLC). Although numerous studies indicate that the overall duration of chemoradiotherapy is the most relevant predictor of outcome, the optimal chemotherapy and radiation schedule for LS-SCLC remains controversial. Therefore we analyzed the time from the start of any treatment until the end of radiotherapy (SER) in patients with LS-SCLC. METHODS: We retrospectively analyzed 29 patients diagnosed histologically with LS-SCLC and divided them into two groups: a short SER group (< 60 days) and a long SER (> 60 days) group. Patients were treated with irinotecan-based chemotherapy and thoracic radiotherapy. RESULTS: Sixteen patients were in the short SER group and 13 patients were in the long SER group. Short SER significantly prolonged survival rate ($p = 0.03$) compared with that of long SER. However, no significant differences in side effects were observed. CONCLUSIONS: Short SER should be considered to improve the outcome of concurrent chemoradiotherapy for LS-SCLC.

[566]

TÍTULO / TITLE: - Video-assisted thoracoscopic lobectomy for non-small cell lung cancer: a morbidity limiting approach in a patient on chronic hemodialysis and double agent antiplatelet therapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Gen Thorac Cardiovasc Surg. 2013 Jul 25.

●● Enlace al texto completo (gratis o de pago) [1007/s11748-013-0294-](#)

[5](#)

AUTORES / AUTHORS: - Caroli G; Dolci G; Dell'amore A; Asadi N; Greco D; Chadi A; Bini A; Stella F

INSTITUCIÓN / INSTITUTION: - Thoracic Surgery Operative Unit, S.Orsola Malpighi Hospital, University of Bologna, Via Massarenti 9, Bologna, Italy.

RESUMEN / SUMMARY: - Patients with end-stage renal disease on hemodialysis undergoing surgery for lung cancer represent a high-risk group because of electrolyte imbalance, anemia, hemodynamic instability, bleeding tendency, and immunocompromised state. We describe a patient on hemodialysis with three lung adenocarcinoma of the right lower lobe as an incidental finding during the clinical course of a myocardial infarction treated with drug-eluting stent implantation and double-agent antiplatelet therapy. Considering patient comorbidities, we decided to perform a right lower lobectomy and complete lymph node dissection by a minimally invasive technique. In our experience, the thoracoscopic approach allowed us to perform lobectomy with complete lymph nodes dissection without morbidity. The use of ultrasound scalpel permits a complete lymph node dissection minimizing bleeding even in a double antiplatelet therapy patient.

[567]

TÍTULO / TITLE: - Serum Tumor Markers, Hypoxia-Inducible factor-1alpha HIF-1alpha and Vascular Endothelial Growth Factor, in Patients with Non- small Cell Lung Cancer Before and after Intervention.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(6):3851-4.

AUTORES / AUTHORS: - Liang J; Qian Y; Xu D; Yin Q; Pan HJ

INSTITUCIÓN / INSTITUTION: - Department of Oncology, Wuxi People's Hospital of Huishan District, Wuxi, Jiangsu, China E-mail : doctorliangjun@163.com.

RESUMEN / SUMMARY: - Objective: To explore changes in the serum tumor makers, hypoxia-inducible factor-1alpha (HIF-1alpha) and vascular endothelial growth factor (VEGF) level and their relations in patients with non-small cell lung cancer (NSCLC) before and after intervention. Materials and Methods: Forty patients with NSCLC and 40 healthy individuals undergoing physical examination in our hospital provided the observation and control groups. HIF-1alpha and VEGF levels in serum were detected by enzyme-linked immunosorbent assay (ELISA) in the observation group before and after intervention and in control group on the day of physical examination, along with serum carcino-embryonic antigen (CEA), neuron-specific enolase (NSE) and squamous cell carcinoma antigen (SCC) levels in the observation group with a fully automatic biochemical analyzer. Clinical effects and improvement of life quality in the observation group were also evaluated. Results: The total effective rate and improvement of life quality after treatment in observation group were 30.0% and 32.5%, respectively. Serum HIF-1alpha and VEGF levels in the control group were lower than that in observation group ($p < 0.01$), but remarkably elevated after intervention ($p < 0.01$). In addition, serum CEA, NSE and SCC levels were apparently lowered by treatment ($p < 0.01$). Serum HIF-1alpha demonstrated a positive relation with VEGF level ($p < 0.01$) and was inversely related with CEA, NSE and SCC levels ($p < 0.01$). Conclusions: Significant correlations exist between marked increase of serum HIF-1alpha and VEGF levels and decrease of indexes related to hematological tumor markers in NSCLC patients after intervention.

[568]

TÍTULO / TITLE: - Experience of segmentectomy from 36 Chinese patients with non-small cell lung cancer at stage I.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chin Med J (Engl). 2013 Jul;126(14):2687-93.

AUTORES / AUTHORS: - Qian LQ; Zhao XJ; Luo QQ; Huang J

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery (Shanghai Lung Cancer Center), Shanghai Chest Hospital, Shanghai Jiao Tong University, Shanghai 200030, China.

RESUMEN / SUMMARY: - BACKGROUND: Although video-assisted radical operation for lung cancer has been widely accepted for treatment of nonsmall cell lung cancer (NSCLC), the debate over video-assisted thoracic surgery (VATS) segmentectomy still remains. This study analyzed the clinical outcomes using VATS segmentectomy for stage I NSCLC patients to explore the safety and efficacy of VATS segmentectomy for Ia NSCLC. METHODS: Retrospective review was conducted of patients who underwent VATS segmentectomy for clinical stage I NSCLC at Shanghai Chest Hospital between November 2009 and May 2012. VATS segmentectomy was performed on 36 patients. Analyses of the patient group were performed on patient demographics and clinical characteristics, intraoperative parameters, complications, and postoperative survival. RESULTS: Thirty-five of thirty-six patients underwent VATS segmentectomy with only one conversion to open thoracic surgery. There was one peri-operative mortality from the segmentectomy group and all other patients are alive with a median follow up of 327 days. The mean volume of chest tube drainage after operation for segmentectomy was 1021.4 ml. Among other parameters, the mean blood loss was 162.5 ml (50.0 - 1600.0 ml), the mean operation time 124.8 minutes (75.0 - 271.0 minutes), chest tube duration 4.1 days (2 - 8 days), and the mean length of hospital stay 6.2 days (4 - 11 days). There was one (2.8%) locoregional recurrence after segmentectomy. Two patients successfully underwent bilateral segmentectomies and are still disease free. CONCLUSION: For patients with stage I NSCLC, VATS segmentectomy offers a safe and equally effective option and can be applied to complicated operations such as bilateral segmentectomy.

[569]

TÍTULO / TITLE: - Identification of pregnancy-associated plasma protein A as a migration-promoting gene in malignant pleural mesothelioma cells: a potential therapeutic target.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncotarget. 2013 Jul 8.

AUTORES / AUTHORS: - Huang J; Tabata S; Kakiuchi S; The Van T; Goto H; Hanibuchi M; Nishioka Y

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine and Rheumatology, Institute of Health Biosciences, The University of Tokushima Graduate School, Tokushima, Japan.

RESUMEN / SUMMARY: - Despite recent advances in treatment, malignant pleural mesothelioma (MPM) remains a deadly disease. Targeted therapy generated broad interests and is highly expected for the treatment of MPM, yet promising preclinical results have not been translated into substantial clinical benefits for the patients. In this study, we tried to identify the genes which play functional roles in cell migration as well as to test whether they can be used as novel targets for molecular targeted therapy for MPM in preclinical model. In our

study, pregnancy-associated plasma protein A (PAPPA) was identified as a gene whose expression level is correlated with MPM cell migration by correlation analysis combining MPM cell migration ability and their gene expression profiles. Highly migratory cells were selected from MPM cell lines, MSTO-211H, NCI-H290 and EHMES-1 in vitro and up-regulation of PAPPA in these cells were confirmed. In vitro, PAPPA was demonstrated to stimulate the MPM cell migration via cleavage of insulin-like growth factor-binding protein-4 and subsequent release of IGF-1. Gene silencing of PAPPA in MPM cells led to reduced migration, invasion and proliferation. Furthermore, PAPPA shRNA transfected NCI-H290 when orthotopically inoculated into pleural cavity of severe combined immunodeficiency recipient mice, failed to develop tumors and produce bloody pleural effusion as control shRNA transfected cells did. Our study suggests that PAPPA plays a functional role in promoting MPM cell migration and it might serve as a potential therapeutic target for the treatment of MPM.

[570]

TÍTULO / TITLE: - Intratumoral localization and activity of 17beta-hydroxysteroid dehydrogenase type 1 in non-small cell lung cancer: a potent prognostic factor.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Transl Med. 2013 Jul 9;11:167. doi: 10.1186/1479-5876-11-167.

●● Enlace al texto completo (gratis o de pago) [1186/1479-5876-11-167](#)

AUTORES / AUTHORS: - Verma MK; Miki Y; Abe K; Suzuki T; Niikawa H; Suzuki S; Kondo T; Sasano H

INSTITUCIÓN / INSTITUTION: - Department of Pathology, Tohoku University Graduate School of Medicine, Sendai, Japan.

RESUMEN / SUMMARY: - BACKGROUND: Estrogens were recently demonstrated to be synthesized in non-small cell lung carcinomas (NSCLCs) via aromatase activity and aromatase inhibitor (AI) did suppressed estrogen receptor (ER) positive NSCLC growth. However, other enzymes involved in intratumoral production and metabolism of estrogens, i.e. 17beta-hydroxysteroid dehydrogenases (i.e. 17betaHSD1 and 17betaHSD2) and others have not been studied. Therefore, in this study, we examined the clinical/ biological significance of 17beta-hydroxysteroid dehydrogenases in NSCLCs.

METHODOLOGY: Archival materials obtained from 103 NSCLC patients were immunohistochemically evaluated using anti-17betaHSD1 and anti-17betaHSD2 antibodies. The findings of immunohistochemistry were then correlated with intratumoral estrone (E1) and estradiol (E2) concentration, clinicopathological factors and overall survival of the patients. We further employed NSCLC cell lines, A549 and LK87 to study the functional significance of 17betaHSD1, in vitro. RESULTS: A higher 17betaHSD1 immunoreactivity tended to be positively associated with aromatase (p=0.057) and tumor stage (p=0.055) whereas a higher 17betaHSD2 immunoreactivity was positively

associated with a squamous cell and adenosquamous cell carcinomas subtypes (p=0.031), tumor stage (p=0.004), T factor of TNM classification (p=0.010), maximum tumor diameter (p=0.002) and tended to be associated with N factor of TMN classification (p=0.065). A higher 17betaHSD1 immunoreactivity was also significantly associated with lower intratumoral E1 concentration (p=0.040) and a higher intratumoral E2/E1 concentration ratio (p=0.028). On the other hand a higher 17betaHSD2 immunoreactivity was significantly associated with higher intratumoral E1 concentration (p=0.035). Results of multivariate regression analysis demonstrated an increased 17betaHSD1 immunoreactivity in tumor cells as an independent negative prognostic factor (HR= 2.83, p=0.007). E1 treatment in 17betaHSD1 positive NSCLC cells, A549 and LK87, resulted in E2 production (p<0.0001) and enhanced cell proliferation, which was abrogated effectively by 17betaHSD1 siRNA knockdown (p<0.0001). In addition, aromatase inhibitor treatment resulted in 17betaHSD1 up regulation in both A549 and LK87 cells. CONCLUSION: Results of our present study suggest that 17betaHSD1 may be considered an important prognostic factor in NSCLC patients and targeting 17betaHSD1 activity may further improve the clinical response in estrogen responsive NSCLC patients.

[571]

TÍTULO / TITLE: - Deep vein thrombosis and lung cancer in a patient with psoriasis under anti-tumor necrosis factor treatment: a case study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Dermatol Ther. 2013 Apr 2. doi: 10.1111/dth.12041.

●● Enlace al texto completo (gratis o de pago) [1111/dth.12041](#)

AUTORES / AUTHORS: - Tatarkova I; Cetkovska P

INSTITUCIÓN / INSTITUTION: - Department of Dermatology and Venereology, Medical Faculty and Teaching Hospital, Pilsen, Czech Republic.

RESUMEN / SUMMARY: - We describe a case of a patient with severe generalized psoriasis treated with etanercept, who developed deep vein thrombosis and 1 year later developed solid lung cancer. Anti-tumor necrosis factor therapies have been a powerful addition to the therapy of psoriasis; nevertheless, the treatment might be associated with adverse events, such as venous thromboembolism or malignancies. Available data regarding these specific adverse reactions are rather conflictive; therefore, more observational studies and registry reports for long-term risk assessment are needed.

[572]

TÍTULO / TITLE: - Proteomic profiling of serum from stage I lung squamous cell carcinoma patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(4):2273-6.

AUTORES / AUTHORS: - Li XJ; Wu QF; He DL; Fu JK; Jin X

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, the First Affiliated Hospital, Medical School of Xi'an Jiaotong University, Xi'an, China.

RESUMEN / SUMMARY: - **OBJECTIVES:** This study employed proteomic profiling to identify specific tumor markers that might improve early diagnosis of lung squamous cell carcinoma. **METHODS:** Serum samples were isolated from 30 patients with stage I lung squamous cell carcinoma and 30 age- and gender-matched healthy controls, and proteomic profiles were obtained by matrix-assisted laser desorption ionization time of flight mass spectrometry. **RESULTS:** Three highly expressed potential tumor markers were identified in the sera of stage I lung squamous cell carcinoma patients, with molecular weights of 3261.69, 3192.07, and 2556.92 Da. One protein peak with molecular weight 3261.69 Da was chosen as the candidate biomarker and identified as a fibrinogen alpha chain through a search of the IPI, NCBI or SWISS-PROT protein databases. **CONCLUSION:** As a potential tumor biomarker, fibrinogen alpha chain may be applicable for the early diagnosis and prognosis of lung squamous cell carcinoma patients.

[573]

TÍTULO / TITLE: - Correlation between microtubule-associated gene expression and chemosensitivity of patients with stage II non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Exp Ther Med. 2013 May;5(5):1506-1510. Epub 2013 Mar 14.

●● Enlace al texto completo (gratis o de pago) [3892/etm.2013.1007](#)

AUTORES / AUTHORS: - Jiang H; Yu XM; Zhou XM; Wang XH; Su D

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Key Laboratory of Thoracic Tumor Diagnosis (Esophagus, Lung) and Treatment Technology Research, Zhejiang Cancer Hospital, Hangzhou, Zhejiang 310022, P.R. China ;

RESUMEN / SUMMARY: - The aim of this study was to explore the correlation between mRNA expression of beta-tubulin-III and stathmin in patients with stage II non-small cell lung cancer (NSCLC) and the chemosensitivity to Navelbine plus cisplatin (NP), as well as to provide a basis for personalized treatment. A single-gene quantitative test was performed to detect the mRNA expression of beta-tubulin-III and stathmin in the tumor tissue of patients with stage II NSCLC. All the patients underwent NP treatment following surgery and were followed-up to record their disease-free survival (DFS) and overall survival (OS). Statistical analyses were conducted to investigate the correlation between beta-tubulin-III and stathmin mRNA expression and DFS and OS in the patients. beta-tubulin-III mRNA expression was associated with OS in the 73 patients ($P=0.003$) and DFS was correlated with beta-tubulin-III mRNA expression and lymphatic metastasis ($P<0.01$). Stathmin mRNA expression was not correlated with OS or DFS ($P>0.05$). OS and DFS were longer in the patients with low beta-tubulin-III mRNA expression than in those with high beta-

tubulin-III mRNA expression ($P < 0.01$); there was no significant change in OS and DFS between the patients with high and low mRNA expression of stathmin ($P > 0.05$). The mRNA expression levels of beta-tubulin-III in the tumor tissue of patients with stage II NSCLC may be considered as an index of prognosis and chemosensitivity, as well as a reference for personalized chemotherapeutic applications in patients.

[574]

TÍTULO / TITLE: - Immunological markers of anti-tumor dendritic cells vaccine efficiency in patients with non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Exp Oncol. 2013 Jun;35(2):109-13.

AUTORES / AUTHORS: - Skachkova OV; Khranovska NM; Gorbach OI; Svergun NM; Sydor RI; Nikulina VV

INSTITUCIÓN / INSTITUTION: - National Cancer Institute, Kyiv, 03022, Ukraine.

RESUMEN / SUMMARY: - Aim: To investigate the quantitative and functional status of peripheral blood lymphocytes in patients with non-small cell lung cancer during DC-vaccine therapy and identify the most informative immunological parameters which are associated with clinical outcome. Materials and Methods: The study was conducted within the framework of randomized phase III clinical trial of DC-vaccine efficacy in patients with non-small cell lung cancer. Quantitative composition of peripheral blood lymphocytes was determined by flow cytometry. Cytokines mRNA expression level was estimated using real-time RT-PCR. Results: In our study the most pronounced changes in the immune system have been defined after fourth DC-vaccine injection. Immunologic features such as reduction the MIP-1alpha mRNA expression level, increasing the RANTES mRNA expression level and NK-cells count, retention CD4/CD8 ratio at physiological level were associated with favorable clinical outcome after DC-immunotherapy. Conclusions: Immunological markers established in our investigation can be used for estimation of DC-immunotherapy efficiency. The results of our research are very promising, but these data should be confirmed in further studies with a large cohort of patients.

[575]

TÍTULO / TITLE: - Imaging of hypoxia with (18) F-FAZA PET in patients with locally advanced non-small cell lung cancer treated with definitive chemoradiotherapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Med Imaging Radiat Oncol. 2013 Aug;57(4):475-81. doi: 10.1111/1754-9485.12086. Epub 2013 Jun 14.

●● Enlace al texto completo (gratis o de pago) [1111/1754-9485.12086](https://doi.org/10.1111/1754-9485.12086)

AUTORES / AUTHORS: - Trinkaus ME; Blum R; Rischin D; Callahan J; Bressel M; Segard T; Roselt P; Eu P; Binns D; Macmanus MP; Ball D; Hicks RJ

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Peter MacCallum Cancer Centre, Melbourne.

RESUMEN / SUMMARY: - **INTRODUCTION:** For many cancers, tumour hypoxia is an adverse prognostic factor, and increases chemoradiation resistance; its importance in non-small cell lung cancer (NSCLC) is unproven. This study evaluated tumoural hypoxia using fluoroazomycin arabinoside ((18) F-FAZA) positron emission tomography (PET) scans among patients with locoregionally advanced NSCLC treated with definitive chemoradiation. **METHODS:** Patients with stage IIIA-IIIB NSCLC underwent (18) F-FAZA PET scans and (18) F-2-deoxyglucose (FDG)-PET scans within 4 weeks of commencing and 8 weeks following conventionally-fractionated concurrent platinum-based chemoradiation (60 Gy). Intra-lesional hypoxic volumes of the primary and nodal masses were compared with FDG-PET metabolic volumes. Baseline tumoural hypoxia was correlated with disease free survival (DFS). **RESULTS:** Seventeen patients underwent pre-treatment (18) F-FAZA PET and FDG-PET scans. Intra-lesional hypoxia was identified on 11 scans (65%). Baseline lesional hypoxic volumes were consistently smaller than FDG-PET volumes (P = 0.012). There was no statistical difference between the mean FDG-PET volumes in patients with or without baseline hypoxia (P = 0.38). Eight patients with baseline hypoxia had post treatment (18) F-FAZA scans and 6 of these (75%) had resolution of imageable hypoxia following chemoradiation. The DFS was not significantly different between the hypoxic or non-hypoxic groups (median 0.8 years and 1.3 years respectively, P = 0.42). **CONCLUSIONS:** Intra-lesional hypoxia, as detected by (18) F-FAZA PET, was present in 65% of patients with locally-advanced NSCLC and resolved in the majority of patients following chemoradiation. Larger studies are required to evaluate the prognostic significance of the presence and resolution of hypoxia assessed by PET in NSCLC.

[576]

TÍTULO / TITLE: - Metabolic Tumor Volume on PET Reduced More than Gross Tumor Volume on CT during Radiotherapy in Patients with Non-Small Cell Lung Cancer Treated with 3DCRT or SBRT.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Radiat Oncol. 2013 Jun;2(2):191-202.

- Enlace al texto completo (gratis o de pago) [1007/s13566-013-0091-](#)

[X](#)

AUTORES / AUTHORS: - Mahasittiwat P; Yuan S; Xie C; Ritter T; Cao Y; Ten Haken RK; Kong FM

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, University of Michigan, Ann Arbor, MI ; Division of Radiation Oncology, Department of Radiology, Faculty of Medicine Siriraj Hospital, Thailand.

RESUMEN / SUMMARY: - **OBJECTIVE:** We have previously demonstrated that tumor reduces in activity and size during the course of radiotherapy (RT) in a

limited number of patients with non-small cell lung cancer (NSCLC). This study aimed to quantify the metabolic tumor volume (MTV) on PET and compare its changes with those of gross tumor volume (GTV) on CT during-RT for 3D conformal radiotherapy (3DCRT) and stereotactic body radiotherapy (SBRT). METHODS: Patients with stage I-III NSCLC treated with a definitive course of RT +/- chemotherapy were eligible for this prospective study. FDG-PET/CT scans were acquired within 2 weeks before RT (pre-RT) and at about two thirds of total dose during-RT. PET-MTVs were delineated using a method combining the tumor/aorta ratio autosegmentation and CT anatomy based manual editing. Data is presented as mean (95% confident interval). RESULTS: The MTV delineation methodology was first confirmed to be highly reproducible by comparing volumes defined by different physicians and using different systems (coefficient >0.98). Fifty patients with 88 primary and nodal lesions were evaluated. The mean ratios of MTV/GTV were 0.70(-0.07~1.47) and 0.33(-0.30~0.95) for pre-RT and during-RT, respectively. PET-MTV reduced by 70% (62-77%), while CT-GTV by 41% (33-49%) ($p < 0.001$) during-RT. MTV reduction was 72.9% and 15.4% for 3DCRT and SBRT, respectively ($p < 0.001$). CONCLUSION: PET-MTV reduced more than CT-GTV during-RT, while patients treated with 3DCRT reduced more than SBRT. RTOG1106 is using during-RT PET-MTV to adapt radiation therapy in 3DCRT.

[577]

TÍTULO / TITLE: - Comparative study analyzing survival and safety of bevacizumab/carboplatin/paclitaxel and cisplatin/pemetrexed in chemotherapy-naive patients with advanced non-squamous bronchogenic carcinoma not harboring EGFR mutation.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Onco Targets Ther. 2013 Jul 1;6:803-9. doi: 10.2147/OTT.S45906. Print 2013.

●● Enlace al texto completo (gratis o de pago) [2147/OTT.S45906](#)

AUTORES / AUTHORS: - Kader YA; Le Chevalier T; El-Nahas T; Sakr A

INSTITUCIÓN / INSTITUTION: - Department of Clinical Oncology, Cairo University, Cairo, Egypt.

RESUMEN / SUMMARY: - PURPOSE: The majority of Egyptian patients with lung cancer present at a late stage of the disease.

Bevacizumab/carboplatin/paclitaxel, as well as cisplatin plus pemetrexed, are both standard regimens for advanced non-squamous bronchogenic cancer. This study compares both regimens, in terms of efficacy and toxicity profile, in Egyptian patients. PATIENTS AND METHODS: This is a randomized Phase II study comparing toxicity profile and survival in 41 chemotherapy-naive patients with stage IIIB or IV non-squamous NSCLC, with an ECOG performance status of 0 to 2. The epidermal growth factor receptor (EGFR) mutation detection was performed prior to treatment of all patients. Patients in the first group received: bevacizumab 7.5 mg/m² on Day 1 and Day 15; carboplatin area under the

curve-5 on Day 1; and paclitaxel 60 mg/m² on Day 1, Day 8, and Day 15 every 4 weeks. In the second group, patients received cisplatin 75 mg/m² and pemetrexed 500 mg/m² every 3 weeks. RESULTS: The combination of bevacizumab/carboplatin/paclitaxel demonstrated higher Grade III-IV toxicity than cisplatin/pemetrexed regarding sensory/motor neuropathy (P = 0.06), DVT (P = 0.23), proteinuria (P = 0.23), and hypertension (P = 0.11), as well as Grade II alopecia (P = 0.001); however, no significant difference in toxicities between both arms was recorded regarding nausea and vomiting (P = 0.66), hematological toxicity, febrile neutropenia (P = 1) and fatigue (P = 0.66). Progression-free survival was similar for both treatment arms with a median of 6 months (P = 0.978). Overall median survival was comparable in both arms, 16.07 months versus 16.01 months (P = 0.89). CONCLUSION: Bevacizumab/carboplatin/paclitaxel and cisplatin/pemetrexed provided meaningful and comparable efficacy in advanced non-squamous bronchogenic carcinoma not harboring EGFR mutation. No significant difference in toxicity was observed between both treatment arms, apart from bevacizumab/carboplatin/paclitaxel-related risks as DVT, hypertension, proteinuria, sensory/motor neuropathy, and alopecia.

[578]

TÍTULO / TITLE: - Differences in Epidermal Growth Factor Receptor Gene Mutations and Relationship with Clinicopathological Features in NSCLC Between Uygur and Han Ethnic Groups.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):2879-83.

AUTORES / AUTHORS: - Zhang Y; Wang Q; Han ZG; Shan L

INSTITUCIÓN / INSTITUTION: - Medical Pulmonology, Tumor Hospital affiliated to Xinjiang Medical University, Urumqi, Xinjiang, China E-mail : shanlinew319@163.com.

RESUMEN / SUMMARY: - Objective: To investigate differences in mutations of epidermal growth factor receptor (EGFR) gene and relationships with clinicopathological features in patients with non-small cell lung cancer (NSCLC) between Uygur and Han ethnic groups. Methods: The Scorpions amplification refractory mutation system (Scorpions ARMS) was used to measure mutations in exons 18, 19, 20 and 21 of the EGFR gene in paraffin-embedded tumor tissue from NSCLC cases, and statistical analysis was performed to investigate links with clinicopathological features in different histological types of NSCLC. Results: Results from ARMS testing showed EGFR mutations in tumor tissues from six (6) of 50 NSCLC patients of Uygur ethnic group, with a positive rate of 12.0%; four of them (4) had exon 19 deletion in EGFR, and two (2) had L858R point mutation in exon 21 of EGFR. Statistically significant difference was noted in EGFR genetic mutation between adenocarcinoma and non-adenocarcinoma (P < 0.05), but no differences with gender, age group, smoking status, or stage (P > 0.05). EGFR mutations were detected in tumor tissues from 27 of 49

NSCLC patients of Han ethnic group , with a positive rate of 55.1%; 19 of them had exon 19 deletions, seven (7) had L858R point mutations in exon 21 of EGFR and one (1) had mutations in both exon 18 G719X and exon 20 T790M of EGFR. Statistically significant differences were noted in EGFR genetic mutations between genders and between adenocarcinoma and non-adenocarcinoma ($P < 0.05$), but not with age group, smoking status, or stage ($P > 0.05$). Conclusion: Statistically significant differences were noted in the positive rates of EGFR genetic mutations in NSCLC patients between Uygur and Han ethnic groups, with lower positive rates for the Uygur cases.

[579]

TÍTULO / TITLE: - Concurrent analysis of copy number variation and gene expression: application in paired non-smoking female lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Data Min Bioinform. 2013;8(1):92-104.

AUTORES / AUTHORS: - Chen PC; Lu TP; Chang JC; Lai LC; Tsai MH; Hsiao CK; Chuang EY

INSTITUCIÓN / INSTITUTION: - Department of Statistics and Informatics Science, Providence University, 200, Chung Chi Rd., Taichun, Taiwan.

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RESUMEN / SUMMARY: - Recent studies indicate that both genomic alterations and transcriptional dysregulation influence the disease progresses. This study proposes a method identifying pathways by integrating copy numbers (CN), gene expressions (GE) and their correlations. A lung cancer patients dataset with both normal and tumor tissues is utilized to evaluate the performance of the proposed method. To further appraise the predicting abilities of those pathways, these patients are classified by support vector machines. Based on the classification results, pathways integrating CN, GE and their correlations is more informative and biologically meaningful and perform better than pathways obtained by only CN or only GE.

[580]

TÍTULO / TITLE: - Gefitinib in combination with prednisolone to avoid interstitial lung disease during non-small cell lung cancer treatment: A case report.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Lett. 2013 May;5(5):1599-1600. Epub 2013 Feb 27.

●● Enlace al texto completo (gratis o de pago) [3892/ol.2013.1212](#)

AUTORES / AUTHORS: - Xue X; Xue Q; Liu Y; Pan L; Wang K; Zhang L; Wang N; Yang B; Wang J

INSTITUCIÓN / INSTITUTION: - Cadres Respiratory Diseases Department of Beijing Shijitan Hospital, Beijing 100038;

RESUMEN / SUMMARY: - Gefitinib-induced interstitial lung disease (ILD) is a rare but lethal drug adverse event, which usually leads to the withdrawal of gefitinib and causes complications with anticancer treatment. In this study, gefitinib administration combined with prednisolone in a female with stage IIIb non-small cell lung cancer (NSCLC) produced a good outcome without inducing ILD. The results suggested that combined administration of gefitinib with glucocorticoids may be an efficient method to treat NSCLC while avoiding complications with ILD.

[581]

TÍTULO / TITLE: - Clinical importance of [F]fluorodeoxyglucose positron emission tomography/computed tomography in the management of patients with bronchoalveolar carcinoma: Role in the detection of recurrence.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Lett. 2013 May;5(5):1687-1693. Epub 2013 Mar 14.

●● Enlace al texto completo (gratis o de pago) [3892/ol.2013.1257](#)

AUTORES / AUTHORS: - Skoura E; Datsiris IE; Exarhos D; Chatziioannou S; Oikonomopoulos G; Samartzis A; Giannopoulou C; Syrigos KN

INSTITUCIÓN / INSTITUTION: - Departments of Nuclear Medicine, Evangelismos General Hospital, Athens, Greece.

RESUMEN / SUMMARY: - ¹⁸F]fluorodeoxyglucose (FDG) positron emission tomography (PET)/computed tomography (CT) has been reported to have a low sensitivity in the initial diagnosis of bronchoalveolar carcinoma (BAC) due to BAC's low metabolic activity. The aim of this study was to assess the value of [¹⁸F]FDG-PET/CT in the detection of BAC recurrence. Between February 2007 and September 2011, the [¹⁸F]FDG-PET/CT scans that were performed on patients with known, histologically proven BAC were studied. A total of 24 [¹⁸F]FDG-PET/CT scans were performed in 22 patients, including 16 males and 6 females, with a mean age of 65+/-9 years. Among the scans, 15 were performed to assess for possible recurrence with equivocal findings in conventional imaging methods and 9 for restaging post-therapy. In all cases conventional imaging studies (CT and MRI) were performed 5-30 days prior to PET/CT. Among the 24 [¹⁸F]FDG-PET/CT scans, 18 were positive and 6 negative. Among the 15 [¹⁸F]FDG-PET/CT scans performed for suspected recurrence, 34 lesions were detected and the mean maximum standardized uptake value (SUVmax) was 6.8+/-3.26. In nine scans, upstaging was observed, while two were in agreement with the findings of the conventional modalities. A greater number of lesions were detected in two scans and fewer lesions were detected in one, with no change in staging. Only one scan was negative. By contrast, in patients examined for restaging, there were only five lesions with a mean SUVmax of 4.86+/-3.18. Agreement between the findings of [¹⁸F]FDG-PET/CT and the conventional modalities was observed in 8 out of 9 cases. Although [¹⁸F]FDG-PET/CT has been reported to have a low

sensitivity in the initial diagnosis of BAC, the present results indicate that when there is recurrence, the lesions become [18F]FDG avid. [18F]FDG-PET/CT may provide further information in patients evaluated for recurrence and thus improve patient management.

[582]

TÍTULO / TITLE: - The potential role for acupuncture in treating symptoms in patients with lung cancer: an observational longitudinal study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Curr Oncol. 2013 Jun;20(3):152-7. doi: 10.3747/co.20.1312.

●● [Enlace al texto completo \(gratis o de pago\) 3747/co.20.1312](#)

AUTORES / AUTHORS: - Kasymjanova G; Grossman M; Tran T; Jagoe RT; Cohen V; Pepe C; Small D; Agulnik J

INSTITUCIÓN / INSTITUTION: - Peter Brojde Lung Cancer Centre, Montreal, QC. ; Jewish General Hospital, Montreal, QC.

RESUMEN / SUMMARY: - **BACKGROUND:** Most lung cancer patients experience multiple symptoms related either to the disease or its treatment. The commonly reported symptoms are pain, depression, anxiety, nausea, and poor well-being. The aim of the present study was to evaluate the effect of acupuncture as a potential treatment modality in symptomatic lung cancer patients. **METHODS:** This prospective observational study enrolled 33 lung cancer patients from the Peter Brojde Lung Cancer Centre between August 2010 and May 2012. All patients received 45-minute sessions of acupuncture, 1-2 times weekly for a minimum of 4 sessions. Symptom severity was assessed using the Edmonton Symptom Assessment System (esas) before and after completion of acupuncture. **RESULTS:** The study cohort included 30 patients with non-small-cell lung cancer and 3 with small-cell lung cancer. Mean age was 62 years (range: 36-88 years); 17 of the patients were women. Most of the patients had advanced-stage cancer (73%) and good performance status (Eastern Cooperative Oncology Group 0-1: 88%). Of these patients, 67% received anticancer treatment (chemotherapy or radiotherapy, or both) with acupuncture. Of the remaining 10 patients, 8 received acupuncture after a complete surgical resection of their tumour, and because of their advanced age, 2 received acupuncture and best supportive care. The median number of acupuncture sessions was 7 (interquartile range: 4-13 sessions). Statistically significant improvements in pain, appetite, nausea, nervousness, and well-being were observed. A clinically important improvement (2 points on the esas) was reported by 61% of patients for pain and by 33% for well-being. A significant positive correlation between improved well-being and the number of acupuncture sessions was observed. This correlation remained significant even after controlling for treatment and narcotic use. Receiver operating characteristic analysis demonstrated that a minimum of 6 acupuncture sessions are required for a 70% chance of a clinically important improvement in well-

being. CONCLUSIONS: The present study is the first to demonstrate that acupuncture may be an effective approach for improving symptoms-in particular, pain and well-being-in lung cancer patients. Acupuncture is a safe and minimally invasive procedure, and it is potentially useful even in patients undergoing anticancer treatment.

[583]

TÍTULO / TITLE: - Multiplex PCR-Based Detection of Circulating Tumor Cells in Lung Cancer Patients Using CK19, PTHrP, and LUNX Specific Primers.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jun 27. pii: S1525-7304(13)00074-0. doi: 10.1016/j.clcc.2013.04.007.

●● Enlace al texto completo (gratis o de pago) 1016/j.clcc.2013.04.007

AUTORES / AUTHORS: - Katseli A; Maragos H; Nezos A; Syrigos K; Koutsilieris M
INSTITUCIÓN / INSTITUTION: - Department of Experimental Physiology, Medical School, National and Kapodistrian University of Athens, Athens, Greece.

RESUMEN / SUMMARY: - INTRODUCTION: The aim of this study was to develop a multiplex polymerase chain reaction (PCR)-based method for detection of circulating tumor cells in peripheral blood of lung cancer (LC) patients. PATIENTS AND METHODS: Peripheral blood was collected from 71 healthy donors and 125 LC patients at different pathological stages. Samples were analyzed using multiplex PCR, and specific primers for CK19, PTHrP, and LUNX mRNA. The sensitivity of our method was set at 10 LC cells (A549 cells) in 3 mL of peripheral blood of healthy donors using spiking experiments. RESULTS: The detection rates in LC patients for CK19, PTHrP, and LUNX were 45.6%, 64.8%, and 28%, and in healthy individuals were 7%, 7%, and 5.6%, respectively. Overall, our method produced 77.8% positive detections for at least 1 molecular marker. Twenty-eight (22.2%) were negative for expression of all markers, 39 (31.2%) were positive for expression of 1 marker, 42 (33.6%) were positive for expression of 2 markers, and 17 (13.6%) were positive for expression of all 3 markers. Detection of CK19 mRNA expression positively correlated with LC stage and distant metastases. PTHrP mRNA detection correlated positively with LC stage, presence of bone metastasis, and squamous cell carcinoma, and LUNX mRNA detection correlated with lymph node involvement. Combined detection of 2 or 3 markers was significantly correlated with metastatic disease, and negative detection of all 3 molecular markers was correlated with early stage nonmetastatic disease. CONCLUSION: Multiple PCR-based detection of CK19, PTHrP, and LUNX mRNA expression provides useful information for disease stage and dissemination in LC patients.

[584]

TÍTULO / TITLE: - Sleep quality in lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):2909-13.

AUTORES / AUTHORS: - Akyuz RG; Ugur O; Elcigil A

INSTITUCIÓN / INSTITUTION: - Konya Numune Hospital, Konya, Turkey E-mail ozlem.ugur@deu.edu.tr.

RESUMEN / SUMMARY: - Background: The aim of this study was to determine factors affecting sleep quality of 100 patients with advanced stage lung cancer. Methods and Results: it was a descriptive study. A variety of assessment tools were used to provide sleep scores to examine the relation between adverse effects caused by the treatment (nausea, vomiting, fatigue) and sleep quality. As a result, no statistically significant relation between coughing and respiratory problems of patients, or existing depression, and average sleep quality score was found (KW:0.872, p=0.646, KW: 3.174, p=0.205, u: 441.000 p=0.916). It was revealed that nausea and loss of appetite experienced also did not affect the sleep quality score (p>0.05), whereas problems such as vomiting and fatigue did exert effects (p<0.01). Conclusions: Patients with advanced stage lung cancer suffer from sleep problems and cancer related symptoms also affect their sleep quality negatively. Nurses should plan interventions that can control symptoms such as pain, vomiting and fatigue, which affect the sleep of patients.

[585]

TÍTULO / TITLE: - Size-based isolation of circulating tumor cells in lung cancer patients using a microcavity array system.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 28;8(6):e67466. doi: 10.1371/journal.pone.0067466. Print 2013.

●● Enlace al texto completo (gratis o de pago)

1371/journal.pone.0067466

AUTORES / AUTHORS: - Hosokawa M; Kenmotsu H; Koh Y; Yoshino T; Yoshikawa T; Naito T; Takahashi T; Murakami H; Nakamura Y; Tsuya A; Shukuya T; Ono A; Akamatsu H; Watanabe R; Ono S; Mori K; Kanbara H; Yamaguchi K; Tanaka T; Matsunaga T; Yamamoto N

INSTITUCIÓN / INSTITUTION: - Division of Biotechnology and Life Science, Institute of Engineering, Tokyo University of Agriculture and Technology, Tokyo, Japan ; Drug Discovery and Development Division, Shizuoka Cancer Center Research Institute, Shizuoka, Japan.

RESUMEN / SUMMARY: - BACKGROUND: Epithelial cell adhesion molecule (EpCAM)-based enumeration of circulating tumor cells (CTC) has prognostic value in patients with solid tumors, such as advanced breast, colon, and prostate cancer. However, poor sensitivity has been reported for non-small cell lung cancer (NSCLC). To address this problem, we developed a microcavity array (MCA) system integrated with a miniaturized device for CTC isolation without relying on EpCAM expression. Here, we report the results of a clinical study on CTCs of advanced lung cancer patients in which we compared the

MCA system with the CellSearch system, which employs the conventional EpCAM-based method. METHODS: Paired peripheral blood samples were collected from 43 metastatic lung cancer patients to enumerate CTCs using the CellSearch system according to the manufacturer's protocol and the MCA system by immunolabeling and cytomorphological analysis. The presence of CTCs was assessed blindly and independently by both systems. RESULTS: CTCs were detected in 17 of 22 NSCLC patients using the MCA system versus 7 of 22 patients using the CellSearch system. On the other hand, CTCs were detected in 20 of 21 small cell lung cancer (SCLC) patients using the MCA system versus 12 of 21 patients using the CellSearch system. Significantly more CTCs in NSCLC patients were detected by the MCA system (median 13, range 0-291 cells/7.5 mL) than by the CellSearch system (median 0, range 0-37 cells/7.5 ml) demonstrating statistical superiority ($p = 0.0015$). Statistical significance was not reached in SCLC though the trend favoring the MCA system over the CellSearch system was observed ($p = 0.2888$). The MCA system also isolated CTC clusters from patients who had been identified as CTC negative using the CellSearch system. CONCLUSIONS: The MCA system has a potential to isolate significantly more CTCs and CTC clusters in advanced lung cancer patients compared to the CellSearch system.

[586]

TÍTULO / TITLE: - Leucocytosis in a case of Lung Cancer: Infection or Paraneoplastic Syndrome? - Dilemma in Diagnosis and Treatment.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Med J Malaysia. 2012 Oct;67(5):542-4.

AUTORES / AUTHORS: - Pandit S; Choudhury S; Das SK; Nandi S

INSTITUCIÓN / INSTITUTION: - Medical College, 88, College Street, Kolkata, West Bengal 713 073 India. drsudiptapandit@rediffmail.com.

RESUMEN / SUMMARY: - A 65 year old male smoker was diagnosed with squamous cell carcinoma of upper lobe of the right lung complicated with Horner's syndrome and gradually increasing leucocytosis. Although the inflammatory biomarker level in serum was low, there was no definite way to determine the cause of the leucocytosis (whether infection or hematologic paraneoplastic syndrome). After empirical antibiotic therapy, his fever subsided but the leucocytosis persisted. It was difficult for us to take a decision regarding the priority of the treatment of infection or the lung cancer. Only after the first cycle chemotherapy, did the leucocytosis rapidly drop down. Normal serum procalcitonin level and quick response to chemotherapy indicated that leucocytosis was a manifestation of paraneoplastic syndrome. Treating the underlying cancer is the first step.

[587]

TÍTULO / TITLE: - High expression of truncated GLI3 is associated with poor overall survival in patients with non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Biomark. 2013;13(1):37-47. doi: 10.3233/CBM-130312.

●● Enlace al texto completo (gratis o de pago) [3233/CBM-130312](#)

AUTORES / AUTHORS: - Bai XY; Lin JY; Zhang XC; Xie Z; Yan HH; Chen ZH; Xu CR; An SJ; Sheng GM; Wu YL

INSTITUCIÓN / INSTITUTION: - Guangdong Lung Cancer Institute, Guangdong General Hospital and Guangdong Academy of Medical Sciences, Guangzhou, Guangdong, China.

RESUMEN / SUMMARY: - BACKGROUND: The hedgehog (Hh) pathway is involved in embryogenesis and organogenesis. GLI3 is one of the zinc-finger transcription factors in the Hh signaling pathway, which exist in both full-length (GLI3FL) and truncated (GLI3TR) forms. We investigated GLI3 expression in patients with non-small cell lung cancer (NSCLC). The role of GLI3 in lung carcinogenesis and its correlation with clinicopathological factors and overall survival (OS) in patients with NSCLC were explored. METHODS: GLI3FL and GLI3TR expression were analyzed immunohistochemically in 330 and 352 evaluable NSCLC tissues respectively. The association between GLI3FL and GLI3TR expression and clinicopathological parameters and OS were statistically analyzed. RESULTS: GLI3FL immunohistochemical staining could be observed in the cytoplasm, while GLI3TR staining could be observed in nucleus of malignant epithelial cells. High level expression of GLI3FL and GLI3TR were 52.7% and 45.2% respectively. GLI3FL was not significantly correlated with any clinicopathological parameter and survival. However, high-expression of GLI3TR was significantly associated with lymph node metastasis ($P = 0.013$) and poor OS (28.4 vs. 40.8 months, $P = 0.010$). In patients with adenocarcinoma of high and low GLI3TR expression, the median OS were 25.7 and 50.6 months respectively ($P = 0.004$). Multivariate analysis showed that GLI3TR expression ($P = 0.036$), tumor differentiation ($P < 0.001$), disease stage ($P < 0.001$) were independent prognostic factors for patients with NSCLC. CONCLUSION: Overexpression of GLI3TR in NSCLC, especially in adenocarcinoma, is associated with poor prognosis. GLI3TR expression is an independent prognostic factor in OS. GLI3TR may play an important role in the tumorigenesis of NSCLC.

[588]

TÍTULO / TITLE: - Polymorphisms Predict Distant Metastasis-Free Survival in Patients with Inoperable Non-Small-Cell Lung Cancer after Definitive Radiotherapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 19;8(6):e65659. Print 2013.

- Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0065659](https://doi.org/10.1371/journal.pone.0065659)

AUTORES / AUTHORS: - Yuan X; Wei Q; Komaki R; Liu Z; Yang J; Tucker SL; Xu T; Heymach JV; Lu C; Cox JD; Liao Z

INSTITUCIÓN / INSTITUTION: - Department of Oncology, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China.

RESUMEN / SUMMARY: - **PURPOSE:** Transforming growth factor (TGF) -beta1 signaling is involved in cancer-cell metastasis. We investigated whether single nucleotide polymorphisms (SNPs) at TGFbeta1 were associated with overall survival (OS) and distant metastasis-free survival (DMFS) in patients with non-small cell lung cancer (NSCLC) treated with definitive radiotherapy, with or without chemotherapy. **METHODS:** We genotyped TGFbeta1 SNPs at rs1800469 (C-509T), rs1800471 (G915C), and rs1982073 (T+29C) by polymerase chain reaction-restriction fragment length polymorphism in blood samples from 205 NSCLC patients who had had definitive radiotherapy at one institution in November 1998-January 2005. We also tested whether the TGF-beta1 rs1982073 (T+29C) SNP affected the migration and invasion of A549 and PC9 lung cancer cells. **RESULTS:** Median follow-up time for all patients was 17 months (range, 1-97 months; 39 months for patients alive at the time of analysis). Multivariate analysis showed that the TGFbeta1 rs1800469 CT/CC genotype was associated with poor OS (hazard ratio [HR] = 1.463 [95% confidence interval {CI} = 1.012-2.114], P = 0.043) and shorter DMFS (HR = 1.601 [95% CI = 1.042-2.459], P = 0.032) and that the TGFbeta1 rs1982073 CT/CC genotype predicted poor DMFS (HR = 1.589 [95% CI = 1.009-2.502], P = 0.046) and poor brain MFS (HR = 2.567 [95% CI = 1.155-5.702], P = 0.021) after adjustment for age, sex, race, performance status, smoking status, tumor histology and volume, stage, receipt of concurrent radiochemotherapy, number of chemotherapy cycles, and radiation dose. Transfection with TGFbeta1+29C (vs. +29T) stimulated the migration and invasion of A549 and PC9 cells, suggesting that TGFbeta1+29C may be linked with increased metastatic potential. **CONCLUSIONS:** TGFbeta1 genotypes at rs1800469 and rs1982073 could be useful for predicting DMFS among patients with NSCLC treated with definitive radiation therapy. These findings require validation in larger prospective trials and thorough mechanistic studies.

[589]

TÍTULO / TITLE: - Association of ABO Blood Group and Risk of Lung Cancer in a Multicenter Study in Turkey.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):2801-3.

AUTORES / AUTHORS: - Urun Y; Utkan G; Cangir AK; Oksuzoglu OB; Ozdemir N; Oztuna DG; Kocaman G; Coskun HS; Kaplan MA; Yuksel C; Demirkazik A; Icli F

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Ankara University School of Medicine, Turkey E-mail : yukselurun@gmail.com.

RESUMEN / SUMMARY: - Background: The ABO blood groups and Rh factor may affect the risk of lung cancer. Materials and Methods: We analyzed 2,044 lung cancer patients with serologically confirmed ABO/Rh blood group. A group of 3,022,883 healthy blood donors of Turkish Red Crescent was identified as a control group. We compared the distributions of ABO/Rh blood group between them. Results: The median age was 62 years (range: 17-90). There was a clear male predominance (84% vs. 16%). Overall distributions of ABO blood groups were significantly different between patients and controls ($p=0.01$). There were also significant differences between patients and controls with respect to Rh positive vs. Rh negative ($p=0.04$) and O vs. non-O ($p=0.002$). There were no statistically significant differences of blood groups with respect to sex, age, or histology. Conclusions: In the study population, ABO blood types were associated with the lung cancer. Having non-O blood type and Rh-negative feature increased the risk of lung cancer. However, further prospective studies are necessary to define the mechanisms by which ABO blood type may influence the lung cancer risk.

[590]

TÍTULO / TITLE: - Effect of Kushen (Radix Sophorae flavescentis) extract on laryngeal neoplasm Hep2 cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Tradit Chin Med. 2013 Apr;33(2):218-22.

AUTORES / AUTHORS: - Wang Y; Han C; Fang X; Shi X; Feng A; He K; Zhang S; Sun X

INSTITUCIÓN / INSTITUTION: - School of Chinese Materia Medica, Beijing University of Chinese Medicine, Beijing 100102, China. wangyzi@sina.com

RESUMEN / SUMMARY: - OBJECTIVE: To evaluate the effect of fermented extract of Kushen (Radix Sophorae Flavescentis) or non-fermented ESF on laryngeal neoplasms Hep2 cells. METHODS: Use 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay to explore the effect of fermented ESF and non-fermented ESF on Hep2 cells, and detect the mRNA and protein expression level of Bcl-2, Bax and Caspase-3 with reverse transcription polymerase chain reaction (RT-PCR) and Western blot. RESULTS: Both fermented ESF and non-fermented ESF could inhibit laryngeal neoplasm's Hep2 cells, but and the cells did not response to the dilution 1: 320 of fermented ESF, nor to the 1:1280 dilution of non-fermented ESF. As time progressed, the dilution 1:80 of fermented ESF and 1:320 dilution of non-fermented ESF could significantly reduce Bcl-2 mRNA and protein expression and down-regulate Caspase-3 mRNA and protein expression. Bax mRNA and protein were not expressed in Hep2 cells. CONCLUSIONS: Both fermented ESF and non-fermented ESF could inhibit the proliferation of Hep2 cells, and

the effect of non-fermented ESF was significantly better than that of the fermented.

[591]

TÍTULO / TITLE: - Surgical treatment of lung cancer in octogenarians.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - South Med J. 2013 Jun;106(6):356-61. doi: 10.1097/SMJ.0b013e318296d8e2.

●● Enlace al texto completo (gratis o de pago)

[1097/SMJ.0b013e318296d8e2](#)

AUTORES / AUTHORS: - Saha SP; Bender M; Ferraris VA; Davenport DL

INSTITUCIÓN / INSTITUTION: - Department of Surgery, University of Kentucky College of Medicine, Lexington, KY, USA. ssaha2@uky.edu

RESUMEN / SUMMARY: - BACKGROUND: As the population ages, octogenarians are becoming the fastest growing patient demographic for non-small-cell lung cancer. We examined lobectomies and 30-day outcomes in this group compared with younger patients to gain insight into the optimal treatment for this challenging group. METHODS: We analyzed data from the American College of Surgeons National Quality Improvement Program for patients with lung cancer undergoing lobectomy during calendar years 2005-2010. We compared clinical risk factors, intraoperative factors, and 30-day operative mortality and major morbidity in octogenarians versus younger patients undergoing either open traditional thoracotomy (OPEN) or video-assisted (VATS) pulmonary lobar resection. RESULTS: Of 2171 patients who had lobar resections for lung cancer, 245 (11%) were octogenarians. Six hundred eight lobectomies (28.0%) were VATS procedures and 1563 (72.0%) were OPEN procedures. The VATS rate increased as patient age increased (34% VATS for octogenarians vs 27% for patients younger than 80 years; $P = 0.01$). Thoracic surgeons performed VATS with greater frequency compared with general surgeons, especially in octogenarians (41% VATS for thoracic surgeons vs 29% for general surgeons; $P < 0.001$). Univariate analysis suggests significantly increased major morbidity (pulmonary, renal, and sepsis), but not operative mortality in octogenarians; however, multivariate predictors of major morbidity include OPEN procedures, preoperative decreased functional status, history of chronic obstructive pulmonary disease, preoperative sepsis, prior radiation, diabetes, and dyspnea on exertion (all $P < 0.05$), but they do not include advanced age. CONCLUSIONS: Comorbidities predict most increased morbidity in octogenarians, and advanced age per se is not an important multivariate predictor of postoperative morbidity or mortality. The frequency of VATS lobectomy increased with increasing patient age, and VATS predisposes to decreased morbidity in octogenarians.

[592]

TÍTULO / TITLE: - Serum C-reactive protein and procalcitonin levels in non-small cell lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Contemp Oncol (Pozn). 2013;17(1):68-72. doi: 10.5114/wo.2013.33777. Epub 2013 Mar 15.

●● Enlace al texto completo (gratis o de pago) [5114/wo.2013.33777](#)

AUTORES / AUTHORS: - Tulek B; Koylu H; Kanat F; Arslan U; Ozer F

INSTITUCIÓN / INSTITUTION: - Department of Pulmonary Medicine, Selcuklu Faculty of Medicine, Selcuk University, Konya, Turkey.

RESUMEN / SUMMARY: - AIM OF THE STUDY: The basic uses of C-reactive protein (CRP) and procalcitonin (PCT) in clinical practice are in the diagnosis and follow-up of infectious disease. The fact that CRP already achieves high levels in cases with lung cancer, however, limits its diagnostic specificity. Procalcitonin may be an important marker in the differential diagnosis of lung cancer patients who have fever and high CRP levels. Our objective in this study was to determine the levels of CRP and PCT in patients with newly diagnosed non-infectious non-small cell lung cancer (NSCLC) and to relate these results to patient and disease characteristics. MATERIAL AND METHODS: Serum CRP and PCT levels were measured in 79 histopathologically proven NSCLC patients and 20 healthy controls. Results were compared with demographic and clinical variables in patients with NSCLC. RESULTS: Serum CRP concentrations were significantly higher in NSCLC patients compared to the control group [38.30 (7.79-185) mg/dl vs. 7.79 (3.36-26.10) mg/dl; $p < 0.001$]. There was no significant difference between the two groups in PCT levels ($p > 0.05$). A mild, positive correlation was found between CRP level and tumor diameter. When comparing CRP levels in the lung cancer patients grouped according to age, sex, smoking status, clinical TNM staging and performance status (PS), the only significant difference found was that for PS score. CONCLUSIONS: High serum CRP levels in non-infectious NSCLC patients are mainly related to PS status and weakly to tumor size. Adding serum PCT measurement may contribute to exclusion of infections in patients with NSCLC.

[593]

- CASTELLANO -

TÍTULO / TITLE: Desfecho de pacientes com cancer de pulmao admitidos em unidades de terapia intensiva.

TÍTULO / TITLE: - Outcomes for patients with lung cancer admitted to intensive care units.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Rev Bras Ter Intensiva. 2013 Mar;25(1):12-16.

AUTORES / AUTHORS: - Muller AM; Gazzana MB; Silva DR

RESUMEN / SUMMARY: - OBJECTIVE: This study aimed to evaluate the outcomes for patients with lung cancer admitted to intensive care units and assess their clinical and demographic profiles. METHODS: Retrospective, analytical, observational study, wherein the outcomes for patients diagnosed with lung cancer admitted to the intensive care unit of university hospital from January 2010 until February 2011 were evaluated. RESULTS: Thirty-four patients' medical records were included. Twenty-six (76.5%) patients received some type of ventilatory support, of whom 21 (61.8%) used invasive mechanical ventilation and 11 (32.4%) used noninvasive ventilation at some point during their stay at the intensive care unit. Regarding mortality, 12 (35.3%) patients died during hospitalization at the intensive care unit, totaling 15 (44.1%) deaths during the entire hospitalization period; 19 (55.9%) patients were discharged from the hospital. The analysis of the variables showed that the patients who died had remained on invasive mechanical ventilation for a longer period 5.0 (0.25 to 15.0) days than the survivors (1.0 (0 to 1.0) days) ($p=0.033$) and underwent dialysis during their stay at the intensive care unit ($p=0.014$). CONCLUSIONS: The mortality of patients with lung cancer admitted to the intensive care unit is associated with the time spent on invasive mechanical ventilation and the need for dialysis.

[594]

TÍTULO / TITLE: - Triplet chemotherapy combination with cisplatin, gemcitabine and docetaxel in patients with chemotherapy-naive advanced non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Lett. 2013 May;5(5):1699-1703. Epub 2013 Feb 21.

●● Enlace al texto completo (gratis o de pago) [3892/ol.2013.1205](#)

AUTORES / AUTHORS: - Tas F; Sen F; Guney N; Keskin S; Camlica H

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Institute of Oncology, Istanbul University, Istanbul 34390, Turkey.

RESUMEN / SUMMARY: - The synergistic effects of new generation chemotherapeutics when combined with cisplatin have encouraged the development of new triplet combination regimens in the treatment of advanced non-small cell lung cancer (NSCLC). The aim of this study was to evaluate the feasibility of triplet chemotherapy using weekly cisplatin-gemcitabine-docetaxel (CGD) for patients with chemotherapy-naive NSCLC. Twenty-seven patients with stage IIIB/IV disease and performance status of 0 to 2 were included in this prospective trial. A combination of gemcitabine 750 mg/m², cisplatin 25 mg/m² and docetaxel 25 mg/m² was administered on days 1, 8 and 15, with cycles repeated every 3 weeks. Leucopenia and/or neutropenia and to a lesser extent thrombocytopenia were the main dose-limiting toxicities. Grade III-IV neutropenia and thrombocytopenia occurred in 26 and 7% of the patients, respectively. Only one patient developed febrile neutropenia. Dose reductions

were required in 26% of patients, delays in 44% of patients and early treatment discontinuation in 15% of patients. The overall response rate was 52% and all of them experienced a partial response. The median progression-free (PFS) and overall survival (OS) times were 6 and 13 months, respectively. The one-year survival rate was 46%. In conclusion, weekly administration of CGD is an active first-line therapy with acceptable toxicity in advanced NSCLC patients.

[595]

TÍTULO / TITLE: - Predicting Survival in Patients with Advanced Non-squamous Non-small Cell Lung Cancer: Validating the Extent of Metastasis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Res. <http://cancerres.aacrjournals.org/> •• Cancer Research: <> Treat. 2013 Jun;45(2):95-102. doi: 10.4143/crt.2013.45.2.95.

•• Enlace al texto completo (gratis o de pago) [4143/crt.2013.45.2.95](http://cancerres.aacrjournals.org/)

AUTORES / AUTHORS: - Lee DS; Kang JH; Lee CG; Kim SJ; Choi YJ; Lee KY; Kim YS

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Seoul St. Mary's Hospital, The Catholic University of Korea College of Medicine, Seoul, Korea.

RESUMEN / SUMMARY: - PURPOSE: A number of factors related to overall survival (OS) have been addressed in advanced non-small cell lung cancer (NSCLC). This study was conducted to determine the impact of whole-body metastatic regions on survival outcome in advanced non-squamous NSCLC. MATERIALS AND METHODS: Between March 2005 and February 2011, 112 eligible patients with newly confirmed stage IV non-squamous NSCLC, available for epidermal growth factor receptor (EGFR) mutation status 18-21 analysis, and accessible for the determination of pretreatment whole-body metastatic regions were enrolled in this retrospective study. The total number of synchronous metastatic regions was scored according to the following disease sites: abdomen/pelvis, lung to lung/pulmonary lymphangitic spread, bone, pleura/pleural effusion/pericardial effusion, neck/axillary lymph nodes, other soft tissue, brain. RESULTS: The median age of the cohort was 65 years (range, 31 to 88 years). The median whole-body metastatic score was 2 (range, 1 to 6), and bone and lung to lung were the most common metastatic sites. EGFR mutations were observed in 40 (35.7%) patients with a deletion in exon 19 and Leu858Arg mutation in exon 21 being detected in 16 (40.0%) and 19 (47.5%) patients, respectively. Multivariate analysis for OS revealed that treatment factors ($p=0.005$), performance status ($p=0.006$), whole-body metastatic score ($p<0.001$), and EGFR mutation status ($p=0.095$) were significantly or marginally associated with OS. CONCLUSION: The results of the present study demonstrated that whole-body metastatic extent strongly affects survival outcome, even after adjustment for other significant variables in advanced non-

squamous NSCLC. The clinical validity of more curative multimodal approaches in cohorts with limited metastases remains to be explored.

[596]

TÍTULO / TITLE: - Relationship between the depression status of patients with resectable non-small cell lung cancer and their family members in China.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur J Oncol Nurs. 2013 Jul 11. pii: S1462-3889(13)00069-0. doi: 10.1016/j.ejon.2013.06.003.

●● Enlace al texto completo (gratis o de pago) 1016/j.ejon.2013.06.003

AUTORES / AUTHORS: - Wu XN; Su D; Li HP; Wang WL; Wu WQ; Yang YJ; Yu FL; Zhang JP

INSTITUCIÓN / INSTITUTION: - Department of Cardio-Thoracic Surgery, The Second Xiangya Hospital of Central South University, Changsha, China.

RESUMEN / SUMMARY: - PURPOSE: Less work on depression status has been done with family members of patients with non-small cell lung cancer (NSCLC). This study investigated depression status of patients and their family members; and the relationship of the depression status between these two groups. METHODS: This cross-sectional study enrolled 194 patients diagnosed with non-small cell lung cancer as well as their family members. In this study, a self-administered General Information Questionnaire was used to collect general information and the Self-rating Depression Scale (SDS) to assess depression status. Linear correlation analysis was used to probe the relationship of the depression status between patients and their family members. RESULTS: Of the 194 patients, 148 (76.3%) showed symptoms of depression. 148 (76.3%) family members had depression symptoms. The severity of depression in patients was positively correlated with that of family members ($r = 0.577$, $p < 0.01$). CONCLUSIONS: Patients with lung cancer and their family members suffered depression, and the two were correlated. A prospective study might prove helpful in determining the real relationship existing between the two groups' mental status and whether early detection and intervention might ameliorate this current situation.

[597]

TÍTULO / TITLE: - A novel report of apoptosis in human lung carcinoma cells using selective agonist of d2-like dopamine receptors: a new approach for the treatment of human non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Immunopathol Pharmacol. 2013 Apr-Jun;26(2):393-402.

AUTORES / AUTHORS: - Sheikhpour M; Ahangari G; Sadeghizadeh M; Deezagi A

INSTITUCIÓN / INSTITUTION: - Department of Genetic, Faculty of Biological Sciences, Tarbiat Modares University, Tehran, Iran.

RESUMEN / SUMMARY: - In our previous study, a relationship between low expression of D2-like dopamine receptor genes and non-small cell lung cancer (NSCLC) disease was found. In this new research, by using selective agonist of these receptors, Bromocriptine (BR), we attempted to activate D2-like expression and apoptotic induction in a selective cell line of NSCLC. In addition, the relationship of apoptotic response of human lung carcinoma cells to BR and D2- dopamine receptor genes is investigated. Human lung cancer (QU-DB) cells were treated by five doses of BR at 48 h and cell viability was determined by MTT assay. The gene expression pattern of D2-like dopamine receptor Genes was studied by Real Time PCR. Nuclear morphology of cells was monitored by DAPI florescent staining then induction of DNA fragmentation by BR was shown in an agarose gel. Finally, the detection and quantification of apoptosis and its differentiation from necrosis was carried out by using Annexin-V-Fluos Staining. In this study, it is demonstrated that BR inhibited the proliferation of human lung cancer cells and induced apoptosis in them. In addition, the probable relationship between D2-dopamine receptor genes expression and the development of apoptosis was found. In conclusion, BR is responsible for induction of apoptosis in human lung cancer cells and can be used in treatment of these tumoric cells. In addition, normal expression of D2 dopamine receptors was associated with apoptotic effect of BR on these cells.

[598]

- CASTELLANO -

TÍTULO / TITLE: Puncao aspirativa transbronquica guiada por ecoendoscopia bronquica no diagnostico e estadiamento de cancro do pulmao em 179 doentes.

TÍTULO / TITLE: - Endobronchial ultrasound-guided transbronchial needle aspiration for lung cancer diagnosis and staging in 179 patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Rev Port Pneumol. 2013 Jul 11. pii: S0873-2159(13)00058-5. doi: 10.1016/j.rppneu.2012.10.006.

●● Enlace al texto completo (gratis o de pago)

1016/j.rppneu.2012.10.006

AUTORES / AUTHORS: - Bugalho A; Ferreira D; Barata R; Rodrigues C; Dias SS; Medeiros F; Carreiro L

INSTITUCIÓN / INSTITUTION: - Unidade de Tecnicas Invasivas Pneumologicas, Pneumologia II, Hospital Pulido Valente, Lisboa, Portugal; Unidade de Pneumologia de Intervencao, Hospital Beatriz Angelo, Loures, Portugal; Centro de Estudos de Doencas Cronicas (CEDOC), Faculdade de Ciencias Medicas, Universidade Nova de Lisboa, Lisboa, Portugal. Electronic address: antonio.bugalho@hbeatrizangelo.pt.

RESUMEN / SUMMARY: - BACKGROUND: Linear endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) is an important minimally

invasive procedure for non-small cell lung cancer (NSCLC) staging. It is also a valid method for diagnosing extraluminal lesions adjacent to the tracheobronchial tree. AIM: To evaluate our EBUS-TBNA performance regarding diagnostic yield, safety and learning curve for lung cancer diagnosis and staging. MATERIAL AND METHODS: All patients undergoing EBUS-TBNA for lung cancer diagnosis or staging were included. They were divided into three different groups: paratracheal and parabronchial masses sent for diagnosis (Group 1); peripheral lung lesions with abnormal mediastinal lymph nodes sent for diagnosis and staging (Group 2); NSCLC patients sent for mediastinal staging (Group 3). The learning curve was assessed for yield, accuracy, procedure time, size and number of lesions punctured per patient. RESULTS: A total of 179 patients were included and 372 lesions were punctured. The overall yield and accuracy were 88% and 92.7%, respectively. In Group 1, EBUS-TBNA was performed in 48 patients and sensitivity was 86.1% and accuracy was 87.5%. For the 87 patients included in Group 2, yield was 86.7%, accuracy was 93.1% and cancer prevalence was 51.7%. The diagnostic yield and accuracy in Group 3 was 95% and 97.7% respectively. EBUS-TBNA practice led to an increase number of sites punctured per patient in a shorter time, without complications. CONCLUSION: EBUS-TBNA is an effective method for diagnosing and staging lung cancer patients. The procedure is clearly safe. Handling and performance improves with the number of procedures executed.

[599]

TÍTULO / TITLE: - Overexpression of the hydatidiform mole-related gene F10 inhibits apoptosis in A549 cells through downregulation of BCL2-associated X protein and caspase-3.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Lett. 2012 Sep;4(3):419-422. Epub 2012 Jun 19.

●● [Enlace al texto completo \(gratis o de pago\) 3892/ol.2012.762](#)

AUTORES / AUTHORS: - Song Y; Zhang G; Zhu X; Pang Z; Xing F; Quan S

INSTITUCIÓN / INSTITUTION: - Center of Reproductive Medicine, Department of Obstetrics and Gynecology, Nanfang Hospital, Guangzhou 510515, P.R. China.

RESUMEN / SUMMARY: - The aim of this study was to investigate how the overexpression of the hydatidiform mole-related gene F10 affects apoptosis in human lung cancer A549 cells. A549 cells were transfected with pEGFP-N1-F10 (A549-F10) or pEGFP-N1 empty vector (A549-empty). Untransfected A549, A549-F10 or A549-empty cells were examined using the MTT cell proliferation assay and the TUNEL-FITC/Hoechst 33258 apoptosis assay. Western blotting was used to examine the expression levels of the pro-apoptotic genes, BCL2-associated X protein (BAX) and caspase-3. F10 was stably expressed in A549 cells. From 12 h, A549-F10 cells proliferated markedly faster than the untransfected and A549-empty cells. F10 overexpression also significantly inhibited apoptosis, as shown by the reduced number of TUNEL and Hoechst 33258 double-positive cells. This inhibition was likely due to an F10-induced

reduction in the BAX and caspase-3 levels. The results of this study indicate that F10 overexpression inhibits apoptosis in A549 cells through the downregulation of the pro-apoptotic genes BAX and caspase-3.

PTPTPTP - JOURNAL ARTICLE

[600]

TÍTULO / TITLE: - Malignant pleural effusion in breast cancer 12 years after mastectomy that was successfully treated with endocrine therapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Case Rep. 2013 Jun 3;14:184-187. Print 2013.

●● Enlace al texto completo (gratis o de pago) [12659/AJCR.889249](#)

AUTORES / AUTHORS: - Shinohara T; Yamada H; Fujimori Y; Yamagishi K

INSTITUCIÓN / INSTITUTION: - Department of Surgery, Hokushin General Hospital, Nakano, Nagano, Japan.

RESUMEN / SUMMARY: - Patient: Female, 94 Final Diagnosis: Malignant pleural effusion Symptoms: - Medication: - Clinical Procedure: Cytology Specialty: Oncology. OBJECTIVE: Unusual clinical course. BACKGROUND: The most common site of postoperative breast cancer recurrence is bone, followed by local relapse, lung, and liver. The majority of relapses occur within the first 3 years after surgery. Pleural recurrences more than 10 years after surgery are rare. CASE REPORT: A 94-year-old woman who had undergone modified radical mastectomy for right breast cancer (invasive ductal carcinoma, pT2, pN1, ER+, PgR+) 12 years earlier presented to our hospital with carcinomatous pleuritis and a chief complaint of dyspnea. Endocrine therapy with oral letrozole was started and the pleural effusion had disappeared 3 months later. CONCLUSIONS: Oral endocrine therapy may be effective for the treatment of late recurrence of hormone receptor-positive breast cancer in elderly women.

[601]

TÍTULO / TITLE: - In vitro activation of hTERT-specific T cell responses in lung cancer patients following chemotherapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Dis. 2013 Jun;5(3):240-50. doi: 10.3978/j.issn.2072-1439.2013.05.07.

●● Enlace al texto completo (gratis o de pago) [3978/j.issn.2072-1439.2013.05.07](#)

AUTORES / AUTHORS: - Gahn B; Staudinger M; Woester K; Wellnitz D; Boettcher S; Gramatzki M; Kneba M

INSTITUCIÓN / INSTITUTION: - Second Department of Medicine, University Medical Center Schleswig-Holstein, 24116 Kiel, Germany;

RESUMEN / SUMMARY: - OBJECTIVE: The aim of this study was to examine chemotherapy concomitant in vitro activation of human telomerase reverse transcriptase (hTERT)-specific T cell responses in peripheral blood mononuclear cell (PBMC) samples of patients with advanced non-small cell

lung cancer (NSCLC). METHODS: PBMCs depleted of regulatory T cells were stimulated by peptide loaded dendritic cells (DC) matured either by application of cytokines (cDC) or a Toll-like receptor 7/8-agonist combined with a soluble CD40-ligand (ligDC). The hTERT peptide-specific T cell responses were assessed using flow cytometry for intracellular interferon-gamma (IFN-gamma). RESULTS: After cDC activation, T cells producing IFN-gamma in response to hTERT were found in PBMC samples of 4 patients. In 2 of these patients the hTERT-specific T cell responses were further increased after ligDC application. However, PBMC of 3 other patients showed little or no induction of hTERT-specific T cell responses as a result of the methods applied during this study. CONCLUSIONS: These results indicate, that concomitant to chemotherapy hTERT-specific T cell responses can be activated in PBMC of NSCLC patients in vitro. This activation can be further increased by ligDC though the number of responding patients is still limited.

[602]

TÍTULO / TITLE: - Prognostic factors for bronchoscopic intervention in advanced lung or esophageal cancer patients with malignant airway obstruction.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Thorac Med. 2013 Apr;8(2):86-92. doi: 10.4103/1817-1737.109818.

●● Enlace al texto completo (gratis o de pago) [4103/1817-1737.109818](#)

AUTORES / AUTHORS: - Song JU; Park HY; Kim H; Jeon K; Um SW; Koh WJ; Suh GY; Chung MP; Kwon OJ

INSTITUCIÓN / INSTITUTION: - Division of Pulmonary and Critical Care Medicine, Department of Medicine, Samsung Medical Center, Seoul, South Korea ; Kangbuk Samsung Hospital, Sungkyunkwan University School of Medicine, Seoul, South Korea.

RESUMEN / SUMMARY: - CONTEXT: Bronchoscopic intervention can provide immediate relief from suffocation and an opportunity for additional treatment in patients with malignant airway obstruction. However, few studies have specifically identified prognostic factors affecting the survival of advanced lung or esophageal cancer patients receiving bronchoscopic intervention. AIMS: We aimed to investigate prognostic factors influencing survival in these patients. STUDY DESIGN: We conducted retrospective study. METHODS: The clinical parameters were retrospectively reviewed in 51 patients (lung cancer: n = 35; esophageal cancer: n = 16) who underwent palliative bronchoscopic interventions due to malignant airway. RESULTS: Bronchoscopic interventions, such as mechanical removal (n = 26), stenting (n = 31), laser cauterization (n = 19), and ballooning (n = 16), were performed on intraluminal (n = 21, 41%), extrinsic (n = 8, 16%), and combined lesions (n = 22, 43%). Tracheal invasion was found in 24 patients (47%). Successful palliation was achieved in 49 patients (96%). After the intervention, additional anti-cancer treatment was

followed in 24 patients (47%). The median survival time and overall survival rate were 3.4 months and 4%. Survival was increased with selected conditions, including a treatment-naive status (hazard ratio [HR], 0.359; confidence interval [CI], 0.158-0.815; P = 0.01), an intact proximal airway (HR, 0.265; CI, 0.095-0.738; P = 0.01), and post-procedural additional treatment (HR, 0.330; CI, 0.166-0.657; P < 0.01). CONCLUSIONS: Bronchoscopic intervention could provide immediate relief and survival improvement in advanced lung or esophageal cancer patients with selected conditions such as a treatment-naive status, an intact proximal airway, and available post-procedural additional treatment.

[603]

TÍTULO / TITLE: - In vitro and in vivo properties of CD133 expressing cells from human lung cancer cell lines.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Exp Hematol. %8?(3k+]3s

<http://www.medicinedirect.com/journal> ●● Experimental Hematology: <> Oncol. 2013 Jun 6;2(1):16. doi: 10.1186/2162-3619-2-16.

●● Enlace al texto completo (gratis o de pago) [1186/2162-3619-2-16](#)

AUTORES / AUTHORS: - Wang P; Suo Z; Wang M; Hoifodt HK; Fodstad O; Gaudernack G; Kvalheim G

INSTITUCIÓN / INSTITUTION: - Department of Cellular Therapy, Oslo University Hospital, Radiumhospitalet, Oslo, Norway. gunnar.kvalheim@medisin.uio.no.

RESUMEN / SUMMARY: - BACKGROUND: Tumor development is recently hypothesized to depend on a rare cell population with stem cell properties, such cells are called cancer stem cells (CSCs) or tumor-initiating cells (TICs). From various cancer tissues or cancer cell lines, CD133 expressing cells were found to define a unique CSC/TIC phenotype. To study whether that also could be the case in lung cancer, we examined different lung cancer cell lines for CD133 expression. RESULTS: Among the 4 cell lines studied, only the cell line LC-42 expressed CD133. Therefore, LC-42 was further characterized and studied with special emphasis on identifying the presence of CD133+ CSCs/TICs. FACS sorted CD133high and CD133dim subpopulations from LC-42 showed no differences in soft agar colony-forming capacity and spheres-forming capacity in serum-free cultures. LC-42 cells contained Side Population (SP), and only SP cells were able to form spheres. Furthermore, Nanog expression was significantly higher in SP than in non-SP. However, no difference was observed of CD133 expression in SP and non-SP. When CD133high and CD133dim cells were serially xeno-transplanted in NOD/SCID mice, both formed tumours similar to their parental LC-42 cells. There were no expression differences for NANOG, OCT4 and SOX2 examined immunohistochemically in the xenografts from both cell fractions. CONCLUSION: Our data do not show a difference in tumorigenic potential of CD133high and CD133dim cells with respect to any of the

parameters analyzed in vitro and in vivo, suggesting that CD133 expression is not restricted to cancer-initiating cells in the human lung cancer cell line LC-42.

[604]

TÍTULO / TITLE: - Prognostic potential of ERCC1 protein expression and clinicopathologic factors in stage III/N2 non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cardiothorac Surg. 2013 Jun 10;8:149. doi: 10.1186/1749-8090-8-149.

●● Enlace al texto completo (gratis o de pago) [1186/1749-8090-8-149](#)

AUTORES / AUTHORS: - Yan D; Wei P; An G; Chen W

INSTITUCIÓN / INSTITUTION: - Department of Oncology, Beijing Chao-Yang Hospital affiliated to Capital Medical University, Workers Stadium South Road, Beijing, China.

RESUMEN / SUMMARY: - BACKGROUND: Pathological stage III/N2 non-small cell lung cancer (NSCLC) is heterogeneous, and the optimal prognostic marker for survival remains unclear in Chinese patients. The aim of the present study was to assess the prognostic value of the clinicopathologic features and excision repair cross-complementing group-1 (ERCC1) in resected p-stage III/N2 NSCLC patients that received cisplatin-based adjuvant chemotherapy. METHODS: Clinical data concerning 115 patients with histopathologically confirmed stage III/N2 NSCLC who underwent a complete resection were reviewed retrospectively. All patients received cisplatin-based adjuvant chemotherapy. The protein expression levels for ERCC1 were immunohistochemically examined in 115 patients. The relationship between the ERCC1 protein expression level and the clinical outcomes of the patients was then observed. RESULTS: The 5-year survival rate and median survival time of patients with pathological stage III/N2 NSCLC after surgery and postoperative chemotherapy was 27.0% and 28.0 months, respectively. Survival of patients with ERCC1 negative tumors was significantly longer than those with ERCC1 positive tumors ($p = 0.004$). However, it was not entirely clear whether adjuvant chemotherapy with cisplatin-based agents was beneficial for ERCC1-negative patients with p-stage III/N2. A multivariate analysis of survival in patients with stage III/N2 NSCLC showed that surgical procedure (pneumonectomy vs. lobectomy; $p = 0.001$), number of involved lymph nodes (≤ 5 vs. >5 ; $p = 0.001$) and ERCC1 protein expression (negative vs. positive; $p = 0.012$) were significant prognostic factors. In addition, the prognosis of patients with skip mediastinal lymph node metastasis showed a tendency for improved survival, but this was not significant ($p = 0.432$). CONCLUSIONS: Findings from this retrospective study suggested that the number of involved lymph nodes and the type of pulmonary resection are significant and independent prognosis factors in patients with p-stage III/N2 NSCLC. In addition, it was found that ERCC1 protein expression might play an important role in the prognosis of p-

stage III/N2 NSCLC patients treated with cisplatin-based adjuvant chemotherapy.

[605]

TÍTULO / TITLE: - Who may benefit from prophylactic cranial irradiation amongst stage III non-small cell lung cancer patients?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J BUON. 2013 Apr-Jun;18(2):453-8.

AUTORES / AUTHORS: - Alsan Cetin I; Akgun Z; Atasoy BM; Fulden Yumuk P; Abacioglu U

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Division of Medical Oncology, Marmara University School of Medicine, Istanbul, Turkey.

RESUMEN / SUMMARY: - Purpose: To identify a high risk group of non-small cell lung cancer (NSCLC) patients who may benefit from preventive strategies in order to reduce the rate of brain metastasis. Methods: Two-hundred stage IIIA (47.5%) and IIIB (52.5%) NSCLC patients were analysed (median age 61 years, range 29-82). Pathological diagnosis consisted of 27% adenocarcinomas, 48.5% squamous cell carcinomas, and 24.5% non-small cell lung carcinomas. Brain metastasis rate was calculated and compared in relation to age, gender, stage, histology, chemotherapy and surgery. Results: Median follow-up was 15 months (range 2-65), and the 2-year survival rate was 35%. Two-year incidence of brain metastasis was 23%. In univariate analysis, 32.9% of the patients younger than 60 years of age developed brain metastasis, in contrast to 15.3% of those older than 60 years ($p=0.003$). Brain was the first metastatic site in younger patients (44.4%) which was significantly higher than in the older age group (23%) ($p=0.03$). Adenocarcinoma had higher risk (39.6%) than squamous cell carcinoma (15.7%) for brain metastasis ($p<0.0001$). Patients 60 years old or younger with adenocarcinoma (53.3%) had higher risk for brain metastasis than all the others (18%; $p<0.0001$). Conclusion: In locally advanced NSCLC patients, age and adenocarcinoma histology represent high risk factors for early development of brain metastasis. Many of the failures are isolated brain lesions and future studies are required to assess the benefit of preventive strategies in selected patients.

[606]

TÍTULO / TITLE: - Video-assisted Thoracoscopic Surgery for Treatment of Early-stage Non-small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):2871-7.

AUTORES / AUTHORS: - Fan XL; Liu YX; Tian H

INSTITUCIÓN / INSTITUTION: - Department of Thoracic, QiLu Hospital, Shandong University, Jinan, China E-mail : huitiancn@163.com.

RESUMEN / SUMMARY: - Objectives: To evaluate the safety, efficacy, and invasiveness of lobectomy by video-assisted thoracoscopic surgery (VATS) in

the treatment of stage I/II non-small cell lung cancer (NSCLC). Methods: A total of 148 patients presenting with Stage I or II NSCLC were enrolled into our study, comprising 71 who underwent VATS and 77 patients undergoing conventional thoracotomic lobectomy, in combination with systematic lymph node resection. Results: It was found that VATS was superior to conventional thoracotomy in terms of the duration of surgery, intraoperative blood loss, frequency of the need to administer postoperative analgesia, thoracic intubation indwelling time, post-operative hospital stay, and survival rate ($P < 0.05$). We saw no obvious difference in the number of resected lymph nodes with either approach. Conclusions: VATS lobectomy is a safe and reliable surgical approach for the treatment of Stage I/II NSCLC, characterized by significantly minimal invasiveness, rapid post-operative recovery, and markedly lower loss of blood.

[607]

TÍTULO / TITLE: - Comparison of health-related quality of life and exercise capacity according to stages in patients with non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Tuberk Toraks. 2013 Jun;61(2):131-9.

AUTORES / AUTHORS: - Yilmaz E; Ozalevli S; Ersoz H; Yegin A; Onen A; Akkoçlu A

INSTITUCIÓN / INSTITUTION: - Dokuz Eylül University School of Physical Therapy and Rehabilitation, Izmir, Turkey. sevgi.ozalevli@gmail.com.

RESUMEN / SUMMARY: - Introduction: The aim of this study is to compare the exercise capacity and health-related quality of life parameters according to stages of patients with non-small cell lung cancer (NSCLC). Materials and Methods: Fifty-two patients (who are able to ambulate independently) with stage I-II (group early-stage, $n = 17$) and stage IIIA-IV NSCLC (group advanced-stage, $n = 35$) were included. Exercise capacity (six minute walking test), strength of the peripheral muscle (Back and Leg Dynamometer), performance status (Karnofsky performance status scale), health-related quality of life- HRQOL (European Organization for Research and Treatment of Cancer Quality of life measure and Short Form-36 Health Survey), depression and anxiety (Hospital Anxiety and Depression Scale) were evaluated. Results: No difference was found in age, body mass index, respiratory symptoms and the distribution of disease cell types between two groups ($p > 0.05$). In advanced-stage group, pulmonary function test values, peripheral muscle strength, walking distance and health-related quality of life scores especially the categories of functional capacity and pain were established significantly lower compared to early-stage group ($p \leq 0.05$). Depression and anxiety levels were confirmed to be similar between groups ($p > 0.05$). Conclusion: The exercise capacity of patients with advanced-stage NSCLC is lower due to reduced pulmonary functions and peripheral muscle strength compared to patients with early-stage NSCLC.

Therefore, we can conclude that reduced exercise capacity negatively impacts functional categories of health related quality of life of patients with advanced-stage NSCLC.

[608]

TÍTULO / TITLE: - Genetic variations in TERT-CLPTM1L genes and risk of lung cancer in Chinese women nonsmokers.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 May 30;8(5):e64988. doi: 10.1371/journal.pone.0064988. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0064988](https://doi.org/10.1371/journal.pone.0064988)

AUTORES / AUTHORS: - Li C; Yin Z; Wu W; Li X; Ren Y; Zhou B

INSTITUCIÓN / INSTITUTION: - Department of Epidemiology, School of Public Health, China Medical University, Shenyang, China.

RESUMEN / SUMMARY: - BACKGROUND: The TERT gene is the reverse transcriptase component of telomerase and is essential for the maintenance of telomere DNA length, chromosomal stability and cellular immortality. CLPTM1L gene encodes a protein linked to cisplatin resistance, and it is well conserved and express in various normal or malignant tissues, including lung. METHODS: To test this hypothesis, we genotyped for two significant SNPs TERT-rs2736098 and CLPTM1L-rs4016981 in a case-control study with 501 cancer cases and 576 cancer-free controls in Chinese nonsmoking population. Information concerning demographic and risk factors was obtained for each case and control by a trained interviewer. Gene polymorphisms were determined by TaqMan methodology. RESULTS: We found that the homozygous variant genetic model of TERT gene was associated with a significantly increased risk of lung cancer with adjusted OR of 1.72(95%CI = 1.19-2.51, P = 0.004 for heterogeneity). The joint effect of TERT and CLPTM1L increased risk for lung cancer with adjusted OR is 1.31(95%CI = 1.00-1.74, P = 0.052 for heterogeneity). CONCLUSION: Genetic variants in TERT and CLPTM1L may affect the susceptibility of lung cancer, especially adenocarcinoma in Chinese women nonsmokers.

[609]

TÍTULO / TITLE: - Prediction of Acute Toxicity Grade ≥ 3 in Patients With Locally Advanced Non-Small-Cell Lung Cancer Receiving Intensity Modulated Radiotherapy and Concurrent Low-Dose Cisplatin.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 5. pii: S1525-7304(13)00067-3. doi: 10.1016/j.clcc.2013.04.001.

●● Enlace al texto completo (gratis o de pago) [1016/j.clcc.2013.04.001](https://doi.org/10.1016/j.clcc.2013.04.001)

AUTORES / AUTHORS: - Uytendaele W; Belderbos J; Baas C; van Werkhoven E; Kneijens J; Baas P; Smit A; Rikers C; van den Heuvel M

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Oncology, Netherlands Cancer Institute-Antoni van Leeuwenhoek Hospital, Amsterdam, The Netherlands. Electronic address: w.uyterlinde@nki.nl.

RESUMEN / SUMMARY: - BACKGROUND: Intensity modulated radiotherapy (IMRT) is increasingly used with concurrent chemotherapy but toxicity data are not well investigated. We correlated clinical and dosimetric parameters with acute toxicity grade ≥ 3 in patients with locally advanced NSCLC treated with IMRT and concurrent low-dose cisplatin. PATIENTS AND METHODS: We analyzed age, PS, comorbidities, gross tumor volume, and the volume of the esophagus irradiated with 50 Gy (V50oes) in relation with acute toxicity. The mean lung dose (MLD) and pulmonary toxicity was described. Treatment consisted of 24 x 2, 75 Gy, and daily cisplatin 6 mg/m². Patients with an MLD ≥ 20 Gy or a PS > 2 were excluded from CCRT. Toxicity was prospectively scored using the Common Toxicity Criteria for adverse events version 3.0. The Charlson Comorbidity Index (CCI) was applied for scoring comorbidities. Multivariable logistic regressions for toxicity and survival estimates (Kaplan-Meier) were used for evaluation. RESULTS: From 2008 to 2011, 188 patients received standard CCRT. In 35% of the patients, acute toxicity grade ≥ 3 was reported. Grade 5 toxicity was scored in 1% of the patients. V50oes (odds ratio [OR], 1.33 per 10% increase; P = .01) and PS ≥ 2 (OR, 3.45; P = .07) were significantly correlated with acute toxicity \geq grade 3. No differences in toxicity were observed between age groups (< 70 and ≥ 70 ; P = .26), and those with a CCI score < 5 and ≥ 5 , and acute severe toxicity (P = .36). Grade ≥ 3 pulmonary toxicity was seen in 7%. The 1- and 2-year overall survival in stage III disease were 78% and 52%, respectively. Patients with a poor PS or a high CCI score had similar survival outcomes. CONCLUSION: Concurrent low-dose cisplatin using IMRT is effective in a large cohort of consecutive patients with NSCLC and life threatening toxicity is rare (1%). PS ≥ 2 and V50oes are correlated with acute toxicity grade ≥ 3 .

[610]

TÍTULO / TITLE: - Prognostic impact of serum CYFRA 21-1 in patients with advanced lung adenocarcinoma: a retrospective study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - BMC Cancer. 2013 Jul 23;13:354. doi: 10.1186/1471-2407-13-354.

●● Enlace al texto completo (gratis o de pago) [1186/1471-2407-13-354](https://doi.org/10.1186/1471-2407-13-354)

AUTORES / AUTHORS: - Ono A; Takahashi T; Mori K; Akamatsu H; Shukuya T; Taira T; Kenmotsu H; Naito T; Murakami H; Nakajima T; Endo M; Yamamoto N

INSTITUCIÓN / INSTITUTION: - Division of Thoracic Oncology, Shizuoka Cancer Center, 1007, Shimonagakubo, Nagaizumi-cho, Sunto-gun, Shizuoka 411-8777, Japan. a.ono@scchr.jp

RESUMEN / SUMMARY: - BACKGROUND: Serum CYFRA 21-1 is one of the most important serum markers in the diagnosis of non-small cell lung cancer

(NSCLC), especially squamous-cell carcinoma. However, it remains unknown whether pretreatment serum CYFRA 21-1 values (PCV) may also have prognostic implications in patients with advanced lung adenocarcinoma. METHODS: We retrospectively reviewed the data of 284 patients (pts) who were diagnosed as having advanced lung adenocarcinoma and had received initial therapy. RESULTS: Of the study subjects, 121 pts (43%) had activating epidermal growth factor receptor (EGFR) mutations (Mt+), while the remaining 163 pts (57%) had wild-type EGFR (Mt-). Univariate analysis identified gender (male/ female), ECOG performance status (PS) (0-1/ ≥ 2), PCV (<2.2 ng/ml/ ≥ 2.2 ng/ml), EGFR mutation status (Mt+/ Mt-), pretreatment serum CEA values (<5.0 ng/ml/ ≥ 5.0 ng/ml), smoking history (yes/ no) and EGFR-TKI treatment (yes/ no) as prognostic factors ($p = .008$, $p < .0001$, $p < .0001$, $p < .0001$, $p = .036$, $p = .0012$, $p < .0001$ respectively). Cox's multivariate regression analysis identified PCV < 2.2ng/ml as the only factor significantly associated with prolonged survival ($p < .0001$, hazard ratio: 0.43, 95% CI 0.31-0.59), after adjustments for PS ($p < .0001$), EGFR mutation status ($p = .0069$), date of start of initial therapy ($p = .07$), gender ($p = .75$), serum CEA level ($p = .63$), smoking history ($p = .39$) and EGFR-TKI treatment ($p = .20$). Furthermore, pts with Mt+ and PCV of <2.2 ng/ml had a more favorable prognosis than those with Mt+ and PCV of ≥ 2.2 ng/ml (MST: 67.0 vs. 21.0 months, $p < .0001$), and patients with Mt- and PCV of <2.2 ng/ml had a more favorable prognosis than those with Mt- and PCV of ≥ 2.2 ng/ml (MST: 24.1 vs. 10.2 months, $p < .0001$). CONCLUSION: PCV may be a potential independent prognostic factor in both Mt+ and Mt- patients with advanced lung adenocarcinoma.

[611]

TÍTULO / TITLE: - Does volume perfusion computed tomography enable differentiation of metastatic and non-metastatic mediastinal lymph nodes in lung cancer patients? A feasibility study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Imaging. 2013 Jul 22;13(3):323-31. doi: 10.1102/1470-7330.2013.0033.

●● Enlace al texto completo (gratis o de pago) [1102/1470-7330.2013.0033](#)

AUTORES / AUTHORS: - Spira D; Wecker M; Spira SM; Hetzel J; Spengler W; Sauter A; Horger M

INSTITUCIÓN / INSTITUTION: - Department of Diagnostic and Interventional Radiology, Eberhard-Karls-University, Hoppe-Seyler-Str. 3, 72076 Tübingen, Germany.

RESUMEN / SUMMARY: - Objectives: To compare the perfusion characteristics of mediastinal lymph node metastases with those of non-metastatic nodes in patients with newly diagnosed lung cancer using volume perfusion computed tomography (VPCT). Materials and methods: Between January 2010 and October 2011, 101 patients with histologically confirmed, untreated lung cancer

received a 40-s VPCT of the tumor bulk; 32/101 patients had evident hilar/mediastinal metastatic disease and 17/101 patients had proven non-metastasized lymph nodes within the VPCT scan range. Validation or exclusion of metastatic node involvement was proven by mediastinoscopy, biopsy, positron emission tomography imaging and/or unequivocal volume dynamics on follow-up computed tomography. A total of 45 metastases and 23 non-metastatic lymph nodes were found within the scan range and subsequently evaluated. Blood flow (BF), blood volume (BV) and K(trans) were determined. Tumor volume was recorded as whole tumor volume. Results: In a comparison between metastatic and non-metastatic lymph nodes, we controlled for age, lymph node volume, lung tumor volume, lung tumor location, and histologic type effects and found no significant differences with respect to BF, BV, K(trans) or heterogeneity in nodal perfusion ($P > 0.05$, respectively), even after adjusting lymph node perfusion values to the perfusion parameters of the primary tumor ($P > 0.05$, respectively). Metastatic lymph node volume had a significant increasing effect on perfusion heterogeneity ($P < 0.05$, respectively) and BV in the primary was a highly significant factor for BV in metastatic disease ($P < 0.001$). Conclusion: Perfusion characteristics of mediastinal metastatic and non-metastatic lymph nodes in untreated lung cancer show considerable overlap, so that a reliable differentiation via VPCT is not possible.

[612]

TÍTULO / TITLE: - EGFR mutations detected on cytology samples by a centralized laboratory reliably predict response to gefitinib in non-small cell lung carcinoma patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Cytopathol. 2013 Jun 18. doi: 10.1002/cncy.21322.

●● Enlace al texto completo (gratis o de pago) [1002/cncy.21322](#)

AUTORES / AUTHORS: - Malapelle U; Bellevicine C; De Luca C; Salatiello M; De Stefano A; Rocco D; de Rosa N; Vitiello F; Russo S; Pepe F; Iaccarino A; Micheli P; Illiano A; Carlomagno C; Piantedosi FV; Troncone G

INSTITUCIÓN / INSTITUTION: - Department of Public Health, University of Naples Federico II, Naples, Italy.

RESUMEN / SUMMARY: - BACKGROUND: Epidermal growth factor receptor (EGFR) mutations are reliably detected by referral laboratories, even if most lung cancer cytology specimens sent to such laboratories contain very few cells. However, EGFR mutations may be distributed heterogeneously within tumors, thereby raising concerns that mutations detected on cytology are not representative of the entire tumor and, thus, are less reliable in predicting response to tyrosine kinase inhibitor (TKI) treatment than mutations detected on histology. To address this issue, the authors reviewed their clinical practice archives and compared the outcome of TKI treatment among patients who were selected by cytology versus patients who were selected by histology.

METHODS: From July 2010 to July 2012, 364 cytology samples and 318 histology samples were received. Exon 19 deletions and the L858R point mutation in exon 21, detected by fragment assay and TaqMan assay, respectively, were confirmed by direct sequencing; discrepancies were resolved by cloning polymerase chain reaction products. The response rate (RR) and progression-free survival (PFS) at 12 months (range, 3-34 months) were evaluable in 13 EGFR-mutated patients who were selected for treatment by cytology and 13 patients who were selected by histology. **RESULTS:** The mutation rate was similar in histology samples (8.5%) and cytology samples (8.8%). The RR (54%) and PFS (9.2 months) were similar in histologically selected patients and cytologically selected patients (RR, 62%; PFS, 8.6 months; P = .88). The disease control rate (responsive plus stable disease) was 92% in histologically selected patients and 100% in cytologically selected patients. **CONCLUSIONS:** EGFR mutations detected on cytology specimens by a centralized laboratory can predict TKI treatment response equally well as mutations identified on histology samples. Cancer (Cancer Cytopathol) 2013. © 2013 American Cancer Society.

[613]

TÍTULO / TITLE: - Methodological Considerations in Quantification of 3'-Deoxy-3'-[F]Fluorothymidine Uptake Measured with Positron Emission Tomography in Patients with Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Imaging Biol. 2013 Jun 29.

●● Enlace al texto completo (gratis o de pago) [1007/s11307-013-0658-](#)

[3](#)

AUTORES / AUTHORS: - Frings V; de Langen AJ; Yaqub M; Schuit RC; van der Veldt AA; Hoekstra OS; Smit EF; Boellaard R

INSTITUCIÓN / INSTITUTION: - Department of Radiology & Nuclear Medicine, VU University Medical Center (VUmc), P.O. Box 7057, 1007 MB, Amsterdam, The Netherlands.

RESUMEN / SUMMARY: - **PURPOSE:** To investigate the effect of image-derived input functions (IDIF), input function corrections and volume of interest (VOI) size in quantification of [18F]FLT uptake in non-small cell lung cancer (NSCLC) patients. **PROCEDURES:** Twenty-three NSCLC patients were scanned on a HR+ scanner. IDIFs were defined over the aorta and left ventricle. Activity concentration and metabolite fraction were measured in venous blood samples. Venous blood samples at 30, 40 and 60 min after injection were used to calibrate the IDIF time-activity curves. Adaptive thresholds were used for VOI definition. Full kinetic analysis and simplified measures were performed. **RESULTS:** Non-linear regression analysis showed better fits for the irreversible model compared to the reversible model in the majority. Calibrated and metabolite corrected plus plasma-to-blood ratio corrected input function resulted in high correlations between SUV and Patlak K_i (Pearson correlation

coefficients 0.86-0.96, p value < 0.001). No significant differences in correlation between SUV and Patlak K_i were observed with variation of IDIF structure or VOI size. CONCLUSIONS: Plasma-to-blood ratio correction, metabolite correction and calibration improved the correlation between SUV and Patlak K_i significantly, indicating the need for these corrections when K_i is used to validate semi-quantitative measures, such as SUV.

[614]

TÍTULO / TITLE: - Determination of safe margin in the surgical pathologic specimens of non-small cell carcinoma of the lung.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pneumologia. 2013 Jan-Mar;62(1):16-8.

AUTORES / AUTHORS: - Feizi I; Sokouti M; Golzari SE; Gojazedeh M; Farahnak MR; Hashemzadeh S; Rahimi-Rad MH

INSTITUCIÓN / INSTITUTION: - Department of Surgery, Ardabil University of Medical Sciences, Ardabil, Iran,

RESUMEN / SUMMARY: - BACKGROUND AND AIM: Local recurrences of the tumor at the surgical margin are serious problems in pulmonary resections for lung cancer. The aim of this study is to determine the involved margins and safe distances of the resection sites from tumor for prevention of local recurrences. MATERIAL AND METHODS: In this prospective study, 66 patients operated for non-small cell lung carcinoma (NSCLC) from Jan 2006 to Sep 2008 were evaluated. After performing pulmonary resections, multiple biopsies were taken up from 5 mm (A), 10 mm (B), 15 mm (C), and 20 mm (D) distance from tumor. The specimens were studied histopathologically. RESULTS: From a total of 66 patients with NSCLC admitted to our referral hospital, 25 (38%) had adenocarcinoma, 18 (27.3%) squamous cell carcinoma, 5 (7.5%) large cell carcinoma, 4 (6%) bronchoalveolar cell carcinoma, 4 (6%) adenoid cystic carcinoma, 3 (4.6%) malignant carcinoid tumor and 7 (10.6%) had metastasis. The most common symptoms were dyspnea and cough. Histopathologically tumor positive margins were found in 84.8% (A), 10.6% (B), 4.5% (C), and 0% (D). There was a significant statistically difference between tumor involvement at distances 5 mm (A) versus 10-20 mm (B-D) (P <0.001). CONCLUSION: A 20 mm distance from the gross tumor is considered as a safe surgical margin in any type of malignant pulmonary resections for prevention of local surgical recurrences if there was no pathologic examination before surgery.

[615]

TÍTULO / TITLE: - Combined gemcitabine and CHK1 inhibitor treatment induces apoptosis resistance in cancer stem cell-like cells enriched with tumor spheroids from a non-small cell lung cancer cell line.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Front Med. 2013 Jul 2.

●● Enlace al texto completo (gratis o de pago) [1007/s11684-013-0270-](http://1007/s11684-013-0270-6)

[6](#)

AUTORES / AUTHORS: - Fang DD; Cao J; Jani JP; Tsaparikos K; Blasina A; Kornmann J; Lira ME; Wang J; Jirout Z; Bingham J; Zhu Z; Gu Y; Los G; Hostomsky Z; Vanarsdale T

INSTITUCIÓN / INSTITUTION: - Oncology Research Unit, Pfizer, Inc., 10777 Science Center Drive, San Diego, CA, 92121, USA, douglasfang@yahoo.com.

RESUMEN / SUMMARY: - Evaluating the effects of novel drugs on appropriate tumor models has become crucial for developing more effective therapies that target highly tumorigenic and drug-resistant cancer stem cell (CSC) populations. In this study, we demonstrate that a subset of cancer cells with CSC properties may be enriched into tumor spheroids under stem cell conditions from a non-small cell lung cancer cell line. Treating these CSC-like cells with gemcitabine alone and a combination of gemcitabine and the novel CHK1 inhibitor PF-00477736 revealed that PF-00477736 enhances the anti-proliferative effect of gemcitabine against both the parental and the CSC-like cell populations. However, the CSC-like cells exhibited resistance to gemcitabine-induced apoptosis. Collectively, the spheroid-forming CSC-like cells may serve as a model system for understanding the mechanism underlying the drug resistance of CSCs and for guiding the development of better therapies that can inhibit tumor growth and eradicate CSCs.

[616]

TÍTULO / TITLE: - Tolerability and toxicity of adjuvant cisplatin and gemcitabine for treating non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chin Med J (Engl). 2013 Jun;126(11):2087-91.

AUTORES / AUTHORS: - Yang F; Li X; Chen KZ; Jiang GC; Wang J

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Peking University Peoples' Hospital, Beijing 100044, China.

RESUMEN / SUMMARY: - BACKGROUND: The combination of cisplatin and vinorelbine is an evidence-supported regimen for adjuvant chemotherapy for treating non-small cell lung cancer (NSCLC). But this doublet has considerable toxicity and unfavorable tolerability, and results in poor compliance. The cisplatin and gemcitabine regimen is one of the most active and well-tolerated regimens against advanced NSCLC, but its toxicity and tolerability has not been adequately evaluated in the adjuvant setting. METHODS: From a lung cancer database we retrospectively reviewed NSCLC patients receiving adjuvant chemotherapy of cisplatin (75 mg/m²) and gemcitabine (1250 mg/m²) between January 2005 and December 2011. Postoperative demographics, compliance to adjuvant therapy and toxicity were retrieved from medical records. RESULTS: A total of 132 patients met the criteria and were included in the study, 96 were male (72.7%) and 36 were female (27.3%). Median age was 60.5 years old, range 29 - 75 years, and 41.7% of patients were \geq 65 years

old. Overall, 68.2% patients received all four planned cycles, and the cumulative dose delivered for gemcitabine was 8333 mg (83.3% of the planned dose) and cisplatin 248 mg (82.7% of the planned dose). There were no treatment-related deaths. Grade $\frac{3}{4}$ neutropenia developed in 47 patients (35.6%) and was the predominant hematologic toxicity. Common grade $\frac{3}{4}$ non-hematologic toxicities were nausea/vomiting (22.0%), infection (12.3%), and febrile neutropenia (11.4%). CONCLUSION: Cisplatin and gemcitabine are feasible for use in the adjuvant setting with a favorable toxicity profile and superior tolerability compared with published data on cisplatin and vinorelbine.

[617]

TÍTULO / TITLE: - Pulmonary tuberculosis and lung cancer risk in current smokers: the Seoul Male Cancer Cohort Study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Korean Med Sci. 2013 Jun;28(6):896-900. doi: 10.3346/jkms.2013.28.6.896. Epub 2013 Jun 3.

- Enlace al texto completo (gratis o de pago)

[3346/jkms.2013.28.6.896](#)

AUTORES / AUTHORS: - Bae JM; Li ZM; Shin MH; Kim DH; Lee MS; Ahn YO

INSTITUCIÓN / INSTITUTION: - Department of Preventive Medicine, Jeju National University School of Medicine, Jeju, Korea. jmbae@jejunu.ac.kr

RESUMEN / SUMMARY: - Authors evaluated pulmonary tuberculosis (PTB) history as a risk factor for lung cancer in current male smokers in a prospective, population-based cohort study. The subjects were the 7,009 males among the participants in the Seoul Male Cancer Cohort Study for whom there was full information on PTB history and smoking habits. With a 16-yr follow-up, 93 cases of lung cancer occurred over the 99,965 person-years of the study. The estimated relative risk (RR) of PTB history of current smokers in lung cancer after adjusting for three confounders - intake of coffee and tomatoes, and age at entry - was 1.85 (95% CI: 1.08-3.19). The observed joint RRs and attributable risks (ARs) across strata of three confounders were greater than the expected, indicating a positive interaction. Thus a history of PTB in current smokers may be another risk factor for lung cancer. Based on a synergic interaction, a heavy male smoker with a PTB history would be expected to belong to the group at high risk of lung cancer.

[618]

TÍTULO / TITLE: - The Role of Gefitinib in Patients with Non-small-cell Lung Cancer in India.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Indian J Palliat Care. 2013 Jan;19(1):48-53. doi: 10.4103/0973-1075.110237.

●● Enlace al texto completo (gratis o de pago) [4103/0973-](#)

[1075.110237](#)

AUTORES / AUTHORS: - Mehta AA; Jose WM; Pavithran K; Triavadi GS

INSTITUCIÓN / INSTITUTION: - Department of Pulmonary Medicine, Cancer Institute and Institute of Molecular Medicine, Amrita Institute of Medical Sciences, AIMS Ponekkara P.O. Kochi, Kerala, India.

RESUMEN / SUMMARY: - BACKGROUND: Gefitinib, an epidermal growth factor receptor-tyrosine kinase inhibitor, represents a new treatment option for patients with advanced non-small-cell lung cancer (NSCLC). We analyzed the data of patients who received Gefitinib for NSCLC in a tertiary care center in South India. MATERIALS AND METHODS: Sixty-three patients with advanced NSCLC who had received Gefitinib either after failure of conventional chemotherapy or were previously not treated as they were unfit or unwilling for conventional treatment were included in the analysis. RESULTS: The median follow-up for the cohort was 311 days (range 11-1544 days). Median time to progression was 161 (range 9-883) days. Complete and partial remission was seen in 1 (2%) and 6 (9%) patients, respectively, with overall response rate of 11%. Twenty-four (38%) patients had stable disease. Gefitinib was well tolerated with no significant side effects. CONCLUSION: Gefitinib shows anti-tumor activity in pretreated or previously untreated patients with advanced NSCLC. It has a favorable toxicity profile and is well tolerated. Gefitinib should be considered as a viable therapy in patients with NSCLC.

[619]

TÍTULO / TITLE: - Hydrogen peroxide promotes epithelial to mesenchymal transition and stemness in human malignant mesothelioma cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(6):3625-30.

AUTORES / AUTHORS: - Kim MC; Cui FJ; Kim Y

INSTITUCIÓN / INSTITUTION: - Laboratory of Clinical Pathology, Research Institute for Veterinary Science, College of Veterinary Medicine, Seoul National University, South Korea E-mail : yongbaek@snu.ac.kr.

RESUMEN / SUMMARY: - Reactive oxygen species (ROS) are known to promote mesothelial carcinogenesis that is closely associated with asbestos fibers and inflammation. Epithelial to mesenchymal cell transition (EMT) is an important process involved in the progression of tumors, providing cancer cells with aggressiveness. The present study was performed to determine if EMT is induced by H₂O₂ in human malignant mesothelioma (HMM) cells. Cultured HMM cells were treated with H₂O₂, followed by measuring expression levels of EMT-related genes and proteins. Immunohistochemically, TWIST1 expression was confined to sarcomatous cells in HMM tissues, but not in epithelioid cells. Treatment of HMM cells with H₂O₂ promoted EMT, as indicated by increased expression levels of vimentin, SLUG and TWIST1, and decreased E-cadherin expression. Expression of stemness genes such as OCT4, SOX2 and NANOG

was also significantly increased by treatment of HMM cells with H₂O₂. Alteration of these genes was mediated via activation of hypoxia inducible factor 1 alpha (HIF-1alpha) and transforming growth factor beta 1 (TGF-beta1). Considering that treatment with H₂O₂ results in excess ROS, the present study suggests that oxidative stress may play a critical role in HMM carcinogenesis by promoting EMT processes and enhancing the expression of stemness genes.

[620]

TÍTULO / TITLE: - Hyaluronic acid in the pleural fluid of patients with malignant pleural mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Respir Investig. 2013 Jun;51(2):92-7. doi: 10.1016/j.resinv.2013.02.002. Epub 2013 Mar 19.

●● Enlace al texto completo (gratis o de pago)

[1016/j.resinv.2013.02.002](#)

AUTORES / AUTHORS: - Fujimoto N; Gemba K; Asano M; Fuchimoto Y; Wada S; Ono K; Ozaki S; Kishimoto T

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Okayama Rosai Hospital, 1-10-25 Chikkomidorimachi, Minamiku, Okayama 7028055, Japan. Electronic address: nfujii@okayamaH.rofuku.go.jp.

RESUMEN / SUMMARY: - BACKGROUND: We retrospectively analyzed hyaluronic acid (HA) concentrations in pleural fluid and evaluated its utility for the differential diagnosis of malignant pleural mesothelioma (MPM). METHODS: Pleural fluid HA concentrations were measured in 334 patients, including 50, 48, 85, 18, 86, 6, and 41 patients with MPM, benign asbestos pleurisy (BAP), lung cancer (LC), other malignant conditions (OMCs), infectious pleuritis (IP), collagen disease (CD), and other conditions, respectively. RESULTS: The median (range) HA concentrations in pleural fluid were 78,700 (7920-2,630,000)ng/ml in the MPM group, 35,950 (900-152,000)ng/ml in the BAP group, 19,500 (2270-120,000)ng/ml in the LC group, 14,200 (900-101,000)ng/ml in the OMC group, 23,000 (900-230,000)ng/ml in the IP group, 24,600 (9550-80,800)ng/ml in the CD group, and 8140 (900-67,800)ng/ml in the other diseases group. HA levels were significantly higher in the MPM group than in the other groups. Receiver operating characteristic (ROC) analysis revealed an area under the ROC curve value of 0.832 (95% confidence interval, 0.765-0.898) for the differential diagnosis of MPM. With a cutoff value of 100,000ng/ml, the sensitivity and specificity were 44.0 and 96.5%, respectively. In the MPM group, HA values were significantly higher for the epithelioid subtype than for the sarcomatous subtype (p=0.007), and higher in earlier stages (I and II) than in advanced stages (III and IV) (p=0.007). CONCLUSIONS: A diagnosis of MPM should be strongly considered in patients with pleural fluid HA concentrations exceeding 100,000ng/ml.

[621]

TÍTULO / TITLE: - Measurement of exhaled alveolar nitrogen oxide in patients with lung cancer: a friend from the past still precious today.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Onco Targets Ther. 2013 May 31;6:609-13. doi: 10.2147/OTT.S44087. Print 2013.

●● Enlace al texto completo (gratis o de pago) [2147/OTT.S44087](#)

AUTORES / AUTHORS: - Kallianos A; Tsimpoukis S; Zarogoulidis P; Darwiche K; Charpidou A; Tsioulis I; Trakada G; Porpodis K; Spyratos D; Panoutsopoulos A; Veletza L; Kostopoulos K; Kostopoulos C; Karapantzos I; Tsakiridis K; Hohenforst-Schmidt W; Zarogoulidis K; Rapti A; Syrigos K

INSTITUCIÓN / INSTITUTION: - Second Pulmonary Clinic, Sotiria Hospital, Athens, Greece;

RESUMEN / SUMMARY: - Nitric oxide (NO) is a marker of airway inflammation and indirectly a general indicator of inflammation and oxidative stress. NO is a contributing factor in lung cancer at an early stage and also after chemotherapy treatment of lung cancer. We studied whether exhaled NO levels were altered by three cycles of chemotherapy at diagnosis and after chemotherapy, and whether, directly or indirectly, these changes were related to the course of disease. Also, a correlation of NO levels with other markers of inflammation was performed. We studied 42 patients diagnosed early: 26 men and 16 women with lung cancer. We analyzed blood tests for control of inflammatory markers, functional pulmonary tests, and alveolar exhaled NO. We recorded a decrease in exhaled NO after three cycles of chemotherapy in all patients, regardless of histological type and stage: there were 42 patients with mean 9.8 NO after three cycles (average 7.7). Also, a strong correlation appeared between NO measurements before and after chemotherapy and C-reactive protein ($P < 0.05$, $r = 0.42$, before) and ($P < 0.045$, $r = 0.64$, after). NO alveolar measurement as an indicator of airway inflammation indicates response to chemotherapy in lung cancer. Also, the inflammatory process in lung cancer was confirmed and indicated response to chemotherapy through an index that is sensitive to inflammatory disease of the airways.

PTPTPTP - Journal Article

[622]

TÍTULO / TITLE: - Radiographic illusion of cardiomegaly resulting from a pulmonary blastoma in a patient imaged for evaluation of chronic bronchitis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - British Medical J (BMJ). %8?(3k+}3s

<http://bmj.com/search.dtl> ●● British Medical J. (BMJ): <> Case Rep. 2013 Jul 25;2013. pii: bcr2013010179. doi: 10.1136/bcr-2013-010179.

●● Enlace al texto completo (gratis o de pago) [1136/bcr-2013-010179](#)

AUTORES / AUTHORS: - Revannasiddaiah S; Bhardwaj B; Susheela SP; Hiremath SB

INSTITUCIÓN / INSTITUTION: - Department of Radiotherapy & Clinical Oncology, Swami Rama Cancer Hospital & Research, Institute, Haldwani, Uttarakhand, India.

[623]

TÍTULO / TITLE: - The microbiology of postobstructive pneumonia in lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Bronchology Interv Pulmonol. 2013 Jul;20(3):266-70. doi: 10.1097/LBR.0b013e31829ddf01.

●● Enlace al texto completo (gratis o de pago)

[1097/LBR.0b013e31829ddf01](#)

AUTORES / AUTHORS: - Hsu-Kim C; Hoag JB; Cheng GS; Lund ME

INSTITUCIÓN / INSTITUTION: - *Drexel University College of Medicine, Division of Pulmonary, Critical Care, and Sleep Medicine daggerAdvanced Center for Lung and Thoracic Oncology, Eastern Regional Medical Center, Cancer Treatment Centers of America, Philadelphia, PA.

RESUMEN / SUMMARY: - Recurrent pneumonias often occur in the setting of an airway obstruction and can be the presenting symptom of an undiagnosed malignancy. Little is known regarding the microbiology of these pneumonias making antibiotic therapy difficult to direct; however, the few studies available show these pneumonias to be polymicrobial. Examining the colonization patterns of at-risk populations such as patients with chronic obstructive pulmonary disease and using techniques such as ultrasound and computed tomography-guided biopsies may help in the treatment of these pneumonias. The following review is presented to highlight the current medical knowledge as well as suggest areas for future evaluation.

[624]

TÍTULO / TITLE: - Sentinel lymph node mapping in patients with operable non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Dis. 2013 Jun;5(3):317-20. doi: 10.3978/j.issn.2072-1439.2013.06.01.

●● Enlace al texto completo (gratis o de pago) [3978/j.issn.2072-](#)

[1439.2013.06.01](#)

AUTORES / AUTHORS: - Karamustafaoglu YA; Yoruk Y; Yanik F; Sarikaya A

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Trakya University Faculty of Medicine, Edirne, Turkey;

RESUMEN / SUMMARY: - BACKGROUND: The aim of this study was to determine the accuracy and the role of the sentinel lymph node (SLN) in patients with non-small cell lung cancer. MATERIAL AND METHOD: This study was carried out on 25 consecutive patients [M/F=23(:)2, mean age 62.84 (47-81) years] with operable non-small cell lung cancer (NSCLC). At thoracotomy,

0.25 mCi of Technecium(99m) (99mTc) nanocolloid was injected into each quadrant of lung tissue surrounding the tumor. Before resection scintigraphic measurements of lymph nodes were obtained in vivo and ex vivo using a hand-held gamma probe counter and the findings were compared with histological examination. SLN was defined as the node with the highest count rate. RESULTS: SLNs were identified in 23 of 25 patients (92%) with a total number of 52 SLNs. Seven of 52 (13%) of these SLNs were positive for metastatic involvement after histological and immunohistochemical examination. In two patients (8%), SLNs could not be found. The sensitivity and specificity were 55% and 86% respectively. CONCLUSIONS: This technic is a good method for identifying the first site of potential nodal metastases of NSCLC. These preliminary results demonstrate this procedure is feasible, but the detection rate has to be improved.

[625]

- CASTELLANO -

TÍTULO / TITLE: Osteonecrose da mandibula associada aos bifosfonatos em doentes com cancro do pulmao.

TÍTULO / TITLE: - Bisphosphonate-associated osteonecrosis of the jaws in lung cancer patients.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Rev Port Pneumol. 2013 Jul 3. pii: S0873-2159(13)00055-X. doi: 10.1016/j.rppneu.2013.05.001.

●● Enlace al texto completo (gratis o de pago)

[1016/j.rppneu.2013.05.001](#)

AUTORES / AUTHORS: - Neves I; Morais A; Magalhaes A

INSTITUCIÓN / INSTITUTION: - Departamento de Pneumologia, Centro Hospitalar de Sao Joao, EPE - Porto, Porto, Portugal. Electronic address: inesneves.porto@gmail.com.

RESUMEN / SUMMARY: - Osteonecrosis of the jaw (ONJ) can occur as a complication of bisphosphonate therapy. This condition has been described in cancer patients and its development has been associated with prolonged exposure to high doses of bisphosphonates. Bad dental hygiene, a history of prosthesis or dental extraction, chemotherapy, corticosteroids, and radiation therapy of the head and neck are risk factors reported. In the initial stages it may be asymptomatic, but the patient subsequently develops severe pain and progressive exposed bone. The authors describe three cases of ONJ in lung cancer patients after prolonged exposure to bisphosphonates and there were known risk factors. ONJ can seriously affect the quality of life of cancer patients. An early diagnosis may reduce or avoid the consequences of progressive bone lesion.

[626]

TÍTULO / TITLE: - Targeting non-small cell lung cancer cells by dual inhibition of the insulin receptor and the insulin-like growth factor-1 receptor.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 24;8(6):e66963. doi: 10.1371/journal.pone.0066963. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0066963](http://dx.doi.org/10.1371/journal.pone.0066963)

AUTORES / AUTHORS: - Vincent EE; Elder DJ; Curwen J; Kilgour E; Hers I; Tavares JM

INSTITUCIÓN / INSTITUTION: - School of Biochemistry, Medical Sciences Building, University of Bristol, Bristol, United Kingdom.

RESUMEN / SUMMARY: - Phase III trials of the anti-insulin-like growth factor-1 receptor (IGF1R) antibody figitumumab in non-small cell lung cancer (NSCLC) patients have been discontinued owing to lack of survival benefit. We investigated whether inhibition of the highly homologous insulin receptor (IR) in addition to the IGF1R would be more effective than inhibition of the IGF1R alone at preventing the proliferation of NSCLC cells. Signalling through IGF1R and IR in the NSCLC cell lines A549 and Hcc193 was stimulated by a combination of IGF1, IGF2 and insulin. It was inhibited by antibodies that block ligand binding, alphaIR3 (IGF1R) and IR47-9 (IR), and by the ATP-competitive small molecule tyrosine kinase inhibitors AZ12253801 and NVP742 which inhibit both IGF1R and IR tyrosine kinases. The effect of inhibitors was determined by an anchorage-independent proliferation assay and by analysis of Akt phosphorylation. In Hcc193 cells the reduction in cell proliferation and Akt phosphorylation due to anti-IGF1R antibody was enhanced by antibody-mediated inhibition of the IR whereas in A549 cells, with a relatively low IR:IGF1R expression ratio, it was not. In each cell line proliferation and Akt phosphorylation were more effectively inhibited by AZ12253801 and NVP742 than by combined alphaIR3 and IR47-9. When the IGF1R alone is inhibited, unencumbered signalling through the IR can contribute to continued NSCLC cell proliferation. We conclude that small molecule inhibitors targeting both the IR and IGF1R more effectively reduce NSCLC cell proliferation in a manner independent of the IR:IGF1R expression ratio, providing a therapeutic rationale for the treatment of this disease.

[627]

TÍTULO / TITLE: - Synergistic Effect of Subtoxic-dose Cisplatin and TRAIL to Mediate Apoptosis by Down-regulating Decoy Receptor 2 and Up-regulating Caspase-8, Caspase-9 and Bax Expression on NCI-H460 and A549 Cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Iran J Basic Med Sci. 2013 May;16(5):710-8.

AUTORES / AUTHORS: - Zhang X; Zhao J; Zhu W; Gou H; Cao D; Yang Y; Huang Y; Yi C

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Cancer Center of West China Hospital, Sichuan University, Chengdu, Sichuan Province, China.

RESUMEN / SUMMARY: - Objective(s) : Although tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) can selectively induce apoptosis in tumor cells, more than half of tumors including non-small cell lung cancer (NSCLC) exhibit TRAIL-resistance. The purpose of this study was to determine whether subtoxic-dose cisplatin and TRAIL could synergistically enhance apoptosis on NSCLC cells and investigate its underlying mechanisms. Materials and Methods: NCI-H460 and A549 cells were treated with TRAIL alone, cisplatin alone or combination treatment in this study. The cytotoxicity was evaluated according to Sulforhodamine B assay, and apoptosis was examined using Hoechst 33342 staining and flow cytometry. The mRNA and protein levels of TRAIL receptors and apoptotic proteins including caspase-8, caspase-9, Bcl-2 and Bax were determined by RT-PCR and Western blotting, respectively. Results: Our results showed that NCI-H460 cells were sensitive to TRAIL, whereas A549 cells were resistant. However, subtoxic-dose cisplatin could enhance the both cells to TRAIL-mediated cell proliferation inhibition and apoptosis. The underlying mechanisms might be associated with the down-regulation of DcR2 and up-regulation of Caspase-8, Caspase-9 and Bax. Conclusion: Subtoxic-dose cisplatin could enhance both TRAIL- sensitive and TRAIL- resistant NSCLC cells to TRAIL-mediated apoptosis. These findings motivated further studies to evaluate such a combinatory therapeutic strategy against NSCLC in the animal models.

[628]

TÍTULO / TITLE: - Innovative method using circulating tumor cells for prediction of the effects of induction therapy on locally advanced non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cardiothorac Surg. 2013 Jul 16;8:175. doi: 10.1186/1749-8090-8-175.

●● Enlace al texto completo (gratis o de pago) [1186/1749-8090-8-175](#)

AUTORES / AUTHORS: - Tarumi S; Gotoh M; Kasai Y; Matsuura N; Okuda M; Go T; Ishikawa S; Yokomise H

INSTITUCIÓN / INSTITUTION: - Department of general thoracic, breast and Endocrinological surgery, Faculty of medicine Kagawa University, Kagawa, Japan. starumi@med.kagawa-u.ac.jp

RESUMEN / SUMMARY: - BACKGROUND: The existence of circulating tumor cells (CTCs) in patients with lung cancer has been reported. The purpose of this study was to assess whether CTCs are predictive of the pathological effects of induction chemoradiotherapy for patients with non-small cell lung cancer. METHODS: Patients who underwent induction chemoradiotherapy followed by surgery were compared with those who underwent surgery alone. Peripheral and pulmonary venous blood samples from the involved lobe were collected intraoperatively, and the number of CTCs was counted using the CellSearch

system, an epithelial cell adhesion molecule-based immunomagnetic technique. RESULTS: Of the 9 patients who underwent induction therapy, 4 achieved pathological CR, 4 achieved major response, and 1 achieved minor response. All patients who underwent induction therapy and surgery alone were negative for CTCs in peripheral blood. In the induction therapy group, 4 patients showing pathological CR were negative for CTCs in pulmonary venous blood (pvCTCs) and 5 showing major/minor response were positive (mean, 57.8 cells). The numbers of CTCs in patients showing major/minor response were significantly higher than those in patients showing pathological CR ($p = 0.012$, Mann-Whitney U test). All 6 patients undergoing surgery alone were positive for pvCTCs (mean, 207.5 cells), showing a significant difference from those undergoing induction therapy ($p = 0.038$). CONCLUSIONS: The existence of CTCs in pulmonary venous blood reflects pathological non-CR, and therapeutic pathological response may be predicted by pvCTC measurement.

[629]

TÍTULO / TITLE: - Recurrence patterns of advanced non-small cell lung cancer treated with gefitinib.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chin Med J (Engl). 2013 Jun;126(12):2235-41.

AUTORES / AUTHORS: - Chen MJ; Zhong W; Zhang L; Zhao J; Li LY; Wang MZ

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing 100730, China.

RESUMEN / SUMMARY: - BACKGROUND: Gefitinib is widely used in the treatment of advanced non-small cell lung cancer (NSCLC). However, only a small number of reports have described initial failure sites in patients treated with gefitinib. The aim of this study was to investigate survival, recurrence sites, and treatment after recurrence in these patients. METHODS: A retrospective review was conducted of all patients with stage III/IV NSCLC treated with gefitinib in Peking Union Medical College Hospital from October 2002 to September 2011. Patient characteristics, initial failure sites, associated clinical factors, and subsequent therapy were included in the analysis of prognostic factors. RESULTS: A total of 316 patients were identified. The median progression free survival (PFS) and overall survival (OS) times were 238 days and 468 days, respectively. The median survival time after progression was 145 days. The sites of initial failure were lung (62.34%), bone (17.72%), central nerve system (CNS, 16.14%), liver (9.49%), and others (7.19%). Patients with single-site progression or multi-site progression were 81.01% and 18.99%, respectively. Progression-free survival time was associated with lung and bone failure. Additionally, the median survival time after progression was lower in patients with multi-site progression and liver progression. Other initial failure sites displayed no relationship with survival, including CNS failure. Subsequent therapy may affect survival after progression. In patients receiving continuous

epidermal growth factor receptor tyrosine kinase inhibitor (EGFR-TKI) therapy, chemotherapy, radiotherapy, and re- treatment with EGFR-TKIs, survival time after progression was prolonged compared with the best supportive care. CONCLUSIONS: Our data suggest that patients receiving gefitinib should be closely monitored regarding lung metastasis during follow-up. Liver metastases and multi-site progression were poor prognostic factors. After failure with gefitinib, patients may benefit from radiotherapy, chemotherapy, continuous EGFR-TKI therapy and re-treatment with EGFR-TKIs.

[630]

TÍTULO / TITLE: - Blood lead concentration correlates with all cause, all cancer and lung cancer mortality in adults: a population based study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):3105-8.

AUTORES / AUTHORS: - Cheung MR

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E-mail : cheung.r100@gmail.com.

RESUMEN / SUMMARY: - Background: This study used National Health and Nutrition Examination Survey III to study the relationship between blood lead concentration and all cause, all cancer and lung cancer mortality in adults. Patients and Methods: Public use National Health and Nutrition Examination Survey (NHANES III) data were used. NHANES III uses stratified, multistage probabilistic methods to sample nationally representative samples. Household adult, laboratory and mortality data were merged. Sample persons who were available to be examined in a Mobile Examination Center (MEC) were included in this study. Specialized survey analysis software was used. Results: A total of 3,482 sample participants with complete information for all variables were included in this analysis. For all cause death, the odds ratios (S.E.) for statistically significant variables were body mass index, 1.03 (1.01- 1.06); age 1.01 (1.01-1.01); blood lead concentration, 1.05 (1.01-1.08); poverty income ratio, 0.823 (0.76-0 .89); and drinking hard liquor, 1.01 (1.00-1.02). For all cancer mortality, the odds ratios (S.E.) of the statistically significant variables were: age, 1.01 (1.01-1.01); blood lead concentration, 1.07 (1.04-1.12), black race, using non-Hispanic white as reference, 1.69 (1.12-2.56); and smoking, 1.02 (1.01-1.04). For lung cancer mortality, the odds ratios (S.E.) of the statistically significant variables were: age, 1.01 (1.01-1.01); blood lead concentration, 1.09 (1.05-1.13); Mexican Americans, using non-Hispanic white as reference, 0.33 (0.129-0.850); other races, 1.80 (0.53-6.18); and smoking, 1.03 (1.02-1.05). Conclusion : Blood lead concentration correlated with all cause, all cancer, and lung cancer mortality in adults.

[631]

TÍTULO / TITLE: - Moderating Effects and Maintenance of Lung Cancer Cellular Immune Functions by CIK Cell Therapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(6):3587-92.

AUTORES / AUTHORS: - Jin CG; Chen XQ; Li J; Wu ZP; Liu X; Wang XC

INSTITUCIÓN / INSTITUTION: - Cancer Research Institute of Yunnan Cancer Hospital (The 3rd Affiliated Hospital of Kunming Medical University), Kunming, Yunnan Province, China E-mail : congguojin@yeah.net.

RESUMEN / SUMMARY: - Aims: To study the CIK cell treatment effects on regulation of cellular immune function disorders in patients with lung cancer, and to analyze the time characteristics. Methods: Cellular immune function was assessed by FCM, and patients with functional disorders were randomly divided into two groups, one given CIK cell therapy within 18 months (5 courses) and the other the controls, which were followed up for 1 year with cellular immune functions tested once a month. Results: There were 5 types of cellular immunity, 4 of which are disorders; after CIK treatment, the improvement rate of the 4 groups were 79.1%, 70.8%, 76.0% and 70.0%, intergroup differences not being statistically significant (P=0.675), all significantly higher than in the control group (P=0.000). The median maintenance times for the 4 groups were 10.4 months (9.76-11.04), 8.4 months (7.86-8.94), 9.8 months (9.20-10.4) and 7.9 months (6.25-9.55), respectively. Conclusions: CIK cells were able to improve the immune functions of patients with lung cancer, the rate of improvement and maintenance time being related to the immune function before the treatment and CIK-cell-therapy courses.

[632]

TÍTULO / TITLE: - Maintenance therapy in advanced non-small cell lung cancer: a prime-time for change?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chin Med J (Engl). 2013 Jun;126(12):2390-8.

AUTORES / AUTHORS: - Chan OS; Yeung RM; Lee AW

INSTITUCIÓN / INSTITUTION: - Department of Clinical Oncology, Pamela Youde Nethersole Eastern Hospital, Hong Kong, China (Email: chansh2@ha.org.hk).

[633]

TÍTULO / TITLE: - Down-regulation of eIF5A-2 prevents epithelial-mesenchymal transition in non-small-cell lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Zhejiang Univ Sci B. 2013 Jun;14(6):460-7. doi: 10.1631/jzus.B1200200.

●● Enlace al texto completo (gratis o de pago) 1631/jzus.B1200200

AUTORES / AUTHORS: - Xu GD; Shi XB; Sun LB; Zhou QY; Zheng DW; Shi HS; Che YL; Wang ZS; Shao GF

INSTITUCIÓN / INSTITUTION: - Department of Thoracic & Cardiovascular Surgery, Lihuili Hospital, Ningbo Medical Center, Affiliated Hospital of Medical School, Ningbo University, Ningbo 315041, China.

RESUMEN / SUMMARY: - BACKGROUND: Epithelial-mesenchymal transition (EMT) is believed to be the critical process in malignant tumor invasion and metastases, and has a great influence on improving the survival rate in non-small-cell lung cancer (NSCLC) patients. Recent studies suggested that eukaryotic initiation factor 5^a-2 (eIF5A-2) might serve as an adverse prognostic marker of survival. We detected eIF5A-2 in NSCLC A549 cells, and found that the invasive capability correlates with the eIF5A-2 expression. METHODS: Transforming growth factor (TGF)-beta1 was used to induce EMT in A549 cells. Western blotting, immunofluorescence, wound healing assay, and transwell-matrigel invasion chambers were used to identify phenotype changes. Western blotting was also used to observe changes of the expression of eIF5A-2. We down-regulated the eIF5A-2 expression using an eIF5A-2 siRNA and identified the phenotype changes by western blotting and immunofluorescence. We tested the change of migration and invasion capabilities of A549 cells by the wound healing assay and transwell-matrigel invasion chambers. RESULTS: After stimulating with TGF-beta1, almost all A549 cells changed to the mesenchymal phenotype and acquired more migration and invasion capabilities. These cells also had higher eIF5A-2 protein expression. Down-regulation of eIF5A-2 expression with eIF5A-2 siRNA transfection could change the cells from mesenchymal to epithelial phenotype and decrease tumor cell migration and invasive capabilities significantly. CONCLUSIONS: The expression of eIF5A-2 was up-regulated following EMT phenotype changes in A549 cells, which correlated with enhanced tumor invasion and metastatic capabilities. Furthermore, in the A549 cell line, the process of EMT phenotype change could be reversed by eIF5A-2 siRNA, with a consequent weakening of both invasive and metastatic capabilities.

[634]

TÍTULO / TITLE: - Solitary gastric metastasis from primary lung adenocarcinoma: a rare site of extra-thoracic metastatic disease.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Gastrointest Oncol. 2013 Jun;4(2):E11-5. doi: 10.3978/j.issn.2078-6891.2012.057.

●● Enlace al texto completo (gratis o de pago) 3978/j.issn.2078-6891.2012.057

AUTORES / AUTHORS: - Katsenos S; Archondakis S

INSTITUCIÓN / INSTITUTION: - Department of Pneumonology, General Army Hospital of Athens, Athens, Greece;

RESUMEN / SUMMARY: - Lung cancer metastasizing to gastrointestinal (GI)-tract is a rare event. Gastric metastasis is usually asymptomatic but when mucosal in location it may cause symptoms as demonstrated in the current case. This report describes a 60-year old male who was admitted for evaluation of a left upper lobe lung mass with associated bilateral nodular opacities and mediastinal lymphadenopathy. After thorough work-up the diagnosis of advanced lung adenocarcinoma was made. During hospitalization period and prior to starting chemotherapy, he exhibited upper gastrointestinal bleeding. Esophagogastroduodenoscopy revealed an ulcerative lesion in the gastric corpus representing metastasis of the primary lung carcinoma that ensued from immunohistochemical analysis. Clinical, pathological and therapeutic aspects of this uncommon site of extrathoracic metastatic disease are discussed, emphasizing the importance of the immunohistochemistry in the differential diagnosis of lung carcinomas whether primary or secondary to the lung.

[635]

TÍTULO / TITLE: - Downregulated adaptor protein p66 mitigates autophagy process by low nutrient and enhances apoptotic resistance in human lung adenocarcinoma A549 cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - FEBS J. 2013 Jul 1. doi: 10.1111/febs.12416.

●● Enlace al texto completo (gratis o de pago) [1111/febs.12416](#)

AUTORES / AUTHORS: - Zheng Z; Yang J; Zhao D; Gao D; Yan X; Yao Z; Liu Z; Ma Z

INSTITUCIÓN / INSTITUTION: - Tianjin Key Laboratory of Medical Epigenetics, Tianjin Medical University, China.

RESUMEN / SUMMARY: - Macroautophagy or autophagy is a lysosome-dependent process in which enzymatic degradation and recycling of cytosolic components occur in stressful contexts. The mechanisms underlying the signaling from starvation to the regulation of autophagy are not fully understood. We previously showed that the Src family member p66Shc (focal adhesion-associated 66 kDa isoform of the Src homology and collagen) promotes anoikis and suppresses tumor metastasis via k-Ras-dependent control of proliferation and survival. However, the role of p66Shc in low-nutrient-induced autophagy-related pathways remains elusive. In this work, human lung adenocarcinoma A549 cells were used to further investigate the biological effects of p66Shc on autophagy and apoptotic resistance. Here, we show that deficiency of p66Shc mitigates the low-nutrient-induced autophagy process in the levels of microtubule-associated protein 1^a light chain protein 3B (LC3B) conversion, in the number of autophagic vacuoles and in p62/sequestosome 1 protein degradation. However, autophagy-related protein Beclin 1 was not significantly changed during low-nutrient treatment. Furthermore, we found that prolonged phosphorylation of extracellular signaling-regulated kinase (Erk)1/2, but not phosphorylation of Akt is significantly sustained when p66Shc expression is

inhibited by shRNA. In addition, cleavage of caspase 7 and poly(ADP-ribose) polymerase, but not caspase 6 and 9 are retarded with this effect compared to the shRNA control cells. Together, these findings suggest the possibility that p66Shc plays a pivotal role in coordinately regulating autophagy process and apoptotic resistance in A549 cells under nutrient-limited conditions.

[636]

TÍTULO / TITLE: - Anaplastic lymphoma kinase gene rearrangement and non-small cell lung cancer management: a step forward in personalized therapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clinics (Sao Paulo). 2013 May;68(5). pii: S1807-59322013000500726. doi: 10.6061/clinics/2013(05)24.

●● Enlace al texto completo (gratis o de pago) [6061/clinics/2013\(05\)24](#)

AUTORES / AUTHORS: - De Mello RA; Araujo A

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Instituto Portugues de Oncologia do Porto Francisco Gentil, Porto, Portugal.

[637]

TÍTULO / TITLE: - Targeting mTOR to Overcome Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitor Resistance in Non-Small Cell Lung Cancer Cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jul 16;8(7):e69104. doi: 10.1371/journal.pone.0069104. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0069104](#)

AUTORES / AUTHORS: - Fei SJ; Zhang XC; Dong S; Cheng H; Zhang YF; Huang L; Zhou HY; Xie Z; Chen ZH; Wu YL

INSTITUCIÓN / INSTITUTION: - Guangdong Lung Cancer Institute, Medical Research Center of Guangdong General Hospital and Guangdong Academy of Medical Sciences, Guangzhou, China ; Graduate School of Southern Medical University, Guangzhou, China.

RESUMEN / SUMMARY: - AIMS: Epidermal growth factor receptor (EGFR) tyrosine kinase inhibitors (TKIs) have shown dramatic clinical benefits in advanced non-small cell lung cancer (NSCLC); however, resistance remains a serious problem in clinical practice. The present study analyzed mTOR-associated signaling-pathway differences between the EGFR TKI-sensitive and -resistant NSCLC cell lines and investigated the feasibility of targeting mTOR with specific mTOR inhibitor in EGFR TKI resistant NSCLC cells. METHODS: We selected four different types of EGFR TKI-sensitive and -resistant NSCLC cells: PC9, PC9GR, H1650 and H1975 cells as models to detect mTOR-associated signaling-pathway differences by western blot and Immunoprecipitation and evaluated the antiproliferative effect and cell cycle arrest of ku-0063794 by MTT method and flow cytometry. RESULTS: In the

present study, we observed that mTORC2-associated Akt ser473-FOXO1 signaling pathway in a basal state was highly activated in resistant cells. In vitro mTORC1 and mTORC2 kinase activities assays showed that EGFR TKI-resistant NSCLC cell lines had higher mTORC2 kinase activity, whereas sensitive cells had higher mTORC1 kinase activity in the basal state. The ATP-competitive mTOR inhibitor ku-0063794 showed dramatic antiproliferative effects and G1-cell cycle arrest in both sensitive and resistant cells. Ku-0063794 at the IC50 concentration effectively inhibited both mTOR and p70S6K phosphorylation levels; the latter is an mTORC1 substrate and did not upregulate Akt ser473 phosphorylation which would be induced by rapamycin and resulted in partial inhibition of FOXO1 phosphorylation. We also observed that EGFR TKI-sensitive and -resistant clinical NSCLC tumor specimens had higher total and phosphorylated p70S6K expression levels. CONCLUSION: Our results indicate mTORC2-associated signaling-pathway was hyperactivated in EGFR TKI-resistant cells and targeting mTOR with specific mTOR inhibitors is likely a good strategy for patients with EGFR mutant NSCLC who develop EGFR TKI resistance; the potential specific roles of mTORC2 in EGFR TKI-resistant NSCLC cells were still unknown and should be further investigated.

[638]

TÍTULO / TITLE: - Indoleamine 2,3-dioxygenase activity and clinical outcome following induction chemotherapy and concurrent chemoradiation in Stage III non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncoimmunology. 2013 Mar 1;2(3):e23428.

●● [Enlace al texto completo \(gratis o de pago\) 4161/onci.23428](#)

AUTORES / AUTHORS: - Creelan BC; Antonia S; Bepler G; Garrett TJ; Simon GR; Soliman HH

INSTITUCIÓN / INSTITUTION: - University of South Florida; Tampa FL USA.

RESUMEN / SUMMARY: - Indoleamine 2,3-dioxygenase (IDO) has recently been proposed to account for tumor-induced immunosuppression by influencing the conversion of tryptophan (Trp) into kynurenine (Kyn). The objective of our study was to correlate IDO activity with disease outcome in non-small cell lung cancer (NSCLC) patients treated with multimodal combination therapy. In a single-arm Phase II trial involving induction gemcitabine and carboplatin followed by concurrent paclitaxel, carboplatin and 74 Gy thoracic radiation in stage III NSCLC patients, plasma was drawn at baseline, post-induction, and post-concurrent therapy. The mean plasma Kyn/Trp ratio was used as a surrogate indicator of IDO activity. The 33 participants were distributed as follows: 15 females, 18 males; median age = 62; median overall survival (OS) = 22.4 (95% CI 19.3-25.1) months; median progression-free survival (PFS) = 11.5 (95% CI 6.7-16.3) months. The mean Kyn/Trp ratio at baseline (4.5 +/- 2.8) was higher than that of healthy controls (2.9 +/- 1.9, p = 0.03) and increased after induction therapy (5.2 +/- 3.2, p = 0.08) and chemoradiation (5.8 +/- 3.9, p = 0.01). The

post-treatment Kyn/Trp ratio and radiologic responses were not significantly associated at any time point. No significant correlation was found between baseline Kyn/Trp ratios and OS (HR = 1.1, 95% CI 0.45-2.5) or PFS (HR = 0.74, 95% CI 0.30-1.82). A post-induction chemotherapy increase in IDO activity portended worse OS (HR = 0.43, 95% CI 0.19-0.95, p = 0.037) and PFS (HR = 0.47, 95% CI 0.22-1.0, p = 0.055). This observed increase in IDO transcription may be a means for tumors to evade immunosurveillance.

[639]

TÍTULO / TITLE: - Treatment of Non-small Cell Lung Carcinoma after Failure of Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitor.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Res. %2!?[y+9?%ak

<http://cancerres.aacrjournals.org/> ●● Cancer Research: <> Treat. 2013 Jun;45(2):79-85. doi: 10.4143/crt.2013.45.2.79. Epub 2013 Jun 30.

●● Enlace al texto completo (gratis o de pago) [4143/crt.2013.45.2.79](http://cancerres.aacrjournals.org/4143/crt.2013.45.2.79)

AUTORES / AUTHORS: - Lee JC; Jang SH; Lee KY; Kim YC

INSTITUCIÓN / INSTITUTION: - Department of Oncology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea.

RESUMEN / SUMMARY: - Since the first description of non-small cell lung cancer (NSCLC) with activating epidermal growth factor receptor (EGFR) mutation as a distinct clinical entity, studies have proved EGFR tyrosine kinase inhibitors (TKIs) as a first choice of treatment. The median response duration of TKIs as a first-line treatment for EGFR mutant tumors ranges from 11 to 14 months. However, acquired resistance to EGFR-TKIs is inevitable due to various mechanisms, such as T790M, c-Met amplification, activation of alternative pathways (IGF-1, HGF, PI3CA, AXL), transformation to mesenchymal cell or small cell features, and tumor heterogeneity. Until development of a successful treatment strategy to overcome such acquired resistance, few options are currently available. Here we provide a summary of the therapeutic options after failure of first line EGFR-TKI treatment for NSCLC.

[640]

TÍTULO / TITLE: - Serum IL-33 as a diagnostic and prognostic marker in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(4):2563-6.

AUTORES / AUTHORS: - Hu LA; Fu Y; Zhang DN; Zhang J

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Diseases, First Affiliated Hospital of Chongqing Medical University, Chongqing, China.

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RESUMEN / SUMMARY: - BACKGROUND: Interleukin-33 (IL-33) has recently been implicated in tumor immunity. The aim of this study was to explore the clinical role of serum IL-33 in patients with non-small-cell lung cancer (NSCLC).

METHODS: Sera collected from 250 healthy volunteers (HV), 256 patients with benign lung diseases (BLD) and 262 NSCLC cases were subjected to IL-33 ELISA and relationships between serum IL-33 and clinical characteristics were evaluated. **RESULTS:** Circulating IL-33 levels were higher in the NSCLC group in comparison with the HV and BLD groups ($p < 0.001$). Using a cut-off level 68 pg/ml (95% specificity in the HV group), IL-33 showed a good diagnostic performance for NSCLC. Multivariate survival analysis indicated that serum IL-33 was an independent prognostic factor in the entire NSCLC group [hazards ratio (HR) = 0.64 for low versus high IL-33 levels, 95% confidence interval (CI) 0.50-0.82; $p < 0.001$] and in 165 selected patients with locally advanced or metastatic disease receiving chemoradiotherapy or chemotherapy (HR 0.70, 95% CI 0.52-0.94; $p = 0.013$). **CONCLUSIONS:** IL-33 is a promising potential diagnostic and prognostic marker in NSCLC, independent of the therapeutic intervention.

[641]

TÍTULO / TITLE: - Lung cancer detection by screening - presenting circulating miRNAs as a promising next generation biomarker breakthrough.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(4):2167-72.

AUTORES / AUTHORS: - Ramshankar V; Krishnamurthy A

INSTITUCIÓN / INSTITUTION: - Preventive Oncology, Cancer Institute (WIA), Chennai, India. vijiciwia@gmail.com

RESUMEN / SUMMARY: - Lung cancer remains a major cause of morbidity and mortality worldwide, accounting for more deaths than any other cause. All the clinical practice guidelines recommended against routine screening for lung cancer have cited lack of robust evidence, at least until a few years back. However, the potential to screen lung cancers has received renewed interest due to superior performance of low dose CT (LD-CT) in detecting early stage cancers. The incremental costs and risks involved due to the invasive procedures in the screened population due to a high false positivity rate questions the use of LD-CT scan as a reliable community based screening tool. There is therefore an urgent need to find a less invasive and a more reliable biomarker that is crucial to increase the probability of early lung cancer detection. This can truly make a difference in lung cancer survival and at the same time be more cost and resource utilization effective. Sampling blood serum being minimally invasive, low risk and providing an easy to obtain biofluid, needs to be explored for potential biomarkers. This review discusses the use of circulatory miRNAs that have been able to discriminate lung cancer patients from disease free controls. Several studies conducted recently suggest that circulating miRNAs may have promising future applications for screening and early detection of lung cancer.

[642]

TÍTULO / TITLE: - Non-small cell lung cancer - genetic predictors.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biomed Pap Med Fac Univ Palacky Olomouc Czech Repub. 2013 Jun;157(2):125-36. doi: 10.5507/bp.2013.034. Epub 2013 May 29.

●● [Enlace al texto completo \(gratis o de pago\) 5507/bp.2013.034](#)

AUTORES / AUTHORS: - Koudelakova V; Kneblova M; Trojanec R; Drabek J; Hajduch M

INSTITUCIÓN / INSTITUTION: - Laboratory of Experimental Medicine, Institute of Molecular and Translational Medicine, <CharStyle:quote12>Faculty of Medicine and Dentistry, Palacky University Olomouc and University Hospital Olomouc, <CharStyle:>

RESUMEN / SUMMARY: - BACKGROUND: Non-small cell lung cancer (NSCLC) accounts for approximately 85% of all lung cancer that is the leading cause of cancer-related mortality worldwide. Several predictive markers have been found in NSCLC patients to date but only a few are currently used for tailored therapy. METHODS AND RESULTS: PubMed and Web of Science online databases were used to search review and original articles on the most important predictive markers in NSCLC. CONCLUSION: EGFR activating mutations (exons 18 to 21) and EML4-ALK rearrangement are clinically important markers able to select NSCLC patients which benefit from EGFR or ALK tyrosine kinase inhibitors (gefitinib, erlotinib, crizotinib). Other markers, such as KRAS mutation, EGFR T790M mutation and C-MET amplification, are responsible for resistance to these inhibitors. Overcoming of this resistance as well as discovery of new potential markers and inhibitors is the main goal of ongoing research and clinical trials in NSCLC.

[643]

TÍTULO / TITLE: - Associations of CYP1A1, GSTM1 and GSTT1 Polymorphisms with Lung Cancer Susceptibility in a Northern Indian Population.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):3345-9.

AUTORES / AUTHORS: - Shukla R; Tilak A; Kumar C; Kant S; Kumar A; Mittal B; Bhattacharya S

INSTITUCIÓN / INSTITUTION: - King George's Medical University, Lucknow, India
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RESUMEN / SUMMARY: - Background: Susceptibility to lung cancer has been shown to be modulated by inheritance of polymorphic genes encoding cytochrome P450 1^a1 (CYP1A1) and glutathione S transferases (GSTM1 and GSTT1), which are involved in the bioactivation and detoxification of environmental toxins. This might be a factor in the variation in lung cancer incidence with ethnicity. Materials and Methods: We conducted a case-control

study of 218 northern Indian lung cancer patients along with 238 healthy controls, to assess any association between CYP1A1, GSTM1 and GSTT1 polymorphisms, either separately or in combination, with the likelihood of development of Lung cancer in our population. Results: We observed a significant difference in the GSTT1 null deletion frequency in this population when compared with other populations (OR=1.87, 95%CI: 1.25-2.80-0.73, P=0.002). However, GSTM1 null genotype was found associated with lung cancer in the non-smoking subgroup. (P=0.170). Conclusions: Our study showed the GSTT1 null polymorphism to be associated with smoking-induced lung cancer and the GSTM1 null polymorphism to have a link with non-smoking related lung cancer.

[644]

TÍTULO / TITLE: - The EphB4 Receptor Tyrosine Kinase Promotes Lung Cancer Growth: A Potential Novel Therapeutic Target.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jul 2;8(7):e67668. doi: 10.1371/journal.pone.0067668. Print 2013.

●● Enlace al texto completo (gratis o de pago)

1371/journal.pone.0067668

AUTORES / AUTHORS: - Ferguson BD; Liu R; Rolle CE; Tan YH; Krasnoperov V; Kanteti R; Tretiakova MS; Cervantes GM; Hasina R; Hseu RD; Iafrate AJ; Karrison T; Ferguson MK; Husain AN; Faoro L; Vokes EE; Gill PS; Salgia R

INSTITUCIÓN / INSTITUTION: - Pritzker School of Medicine, University of Chicago, Chicago, Illinois, United States of America ; Department of Medicine, Section of Hematology/Oncology, University of Chicago, Chicago, Illinois, United States of America.

RESUMEN / SUMMARY: - Despite progress in locoregional and systemic therapies, patient survival from lung cancer remains a challenge. Receptor tyrosine kinases are frequently implicated in lung cancer pathogenesis, and some tyrosine kinase inhibition strategies have been effective clinically. The EphB4 receptor tyrosine kinase has recently emerged as a potential target in several other cancers. We sought to systematically study the role of EphB4 in lung cancer. Here, we demonstrate that EphB4 is overexpressed 3-fold in lung tumors compared to paired normal tissues and frequently exhibits gene copy number increases in lung cancer. We also show that overexpression of EphB4 promotes cellular proliferation, colony formation, and motility, while EphB4 inhibition reduces cellular viability in vitro, halts the growth of established tumors in mouse xenograft models when used as a single-target strategy, and causes near-complete regression of established tumors when used in combination with paclitaxel. Taken together, these data suggest an important role for EphB4 as a potential novel therapeutic target in lung cancer. Clinical trials investigating the

efficacy of anti-EphB4 therapies as well as combination therapy involving EphB4 inhibition may be warranted.

[645]

TÍTULO / TITLE: - Limited stage small cell carcinoma of the gastrointestinal tract: a clinicopathologic and prognostic analysis of 27 cases.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Rare Tumors. 2013 May 2;5(1):e6. doi: 10.4081/rt.2013.e6. Print 2013 Feb 11.

●● Enlace al texto completo (gratis o de pago) [4081/rt.2013.e6](#)

AUTORES / AUTHORS: - Peng C; Shen S; Zhang X; Zou X

INSTITUCIÓN / INSTITUTION: - Department of Gastroenterology, the Affiliated Drum Tower Hospital of Nanjing University Medical School, China.

RESUMEN / SUMMARY: - Small cell carcinoma of the gastrointestinal tract is a rare and aggressive neuroendocrine tumor. This study aims to analyze the clinical characteristics and potential prognostic factors for patients with limited stage small cell carcinoma of the gastrointestinal tract. The records of 27 patients with limited stage small cell carcinoma of the gastrointestinal tract, who all received surgery with lymphadenectomy, were retrieved and analyzed retrospectively. The median age of patients was 60 years old (range 38-79). The primary locations of tumor were the esophagus (74.1%) and stomach (14.8%). The rate of preoperative accurate diagnosis (16.7%) was low for small cell carcinoma of the esophagus and stomach. 40.7% of all the patients had regional lymph node metastases. Five patients underwent surgery alone, and the other 22 were treated with surgery + postoperative chemotherapy. All patients had disease progression or recurrence. The overall median survival time was 10 months and the 1-year survival rate was 37.0%. Patients who received postoperative chemotherapy had a median survival time of 12 months, which was superior to the 5-month survival of for those who only had surgery ($P < 0.0001$). TNM stage ($P = 0.02$) and postoperative chemotherapy ($P < 0.0001$) were considered as two prognostic factors in uni-variate analysis. Postoperative chemotherapy was a significant independent prognostic factor in multivariate analysis ($P = 0.01$). The prognosis for patients with limited stage small cell carcinoma of the gastrointestinal tract remains dismal, however, postoperative chemotherapy may have the potential to improve the outcome for these patients.

[646]

TÍTULO / TITLE: - Clinical and experimental studies regarding the expression and diagnostic value of carcinoembryonic antigen-related cell adhesion molecule 1 in non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - BMC Cancer. 2013 Jul 25;13(1):359. doi: 10.1186/1471-2407-13-359.

●● Enlace al texto completo (gratis o de pago) 1186/1471-2407-13-359

AUTORES / AUTHORS: - Zhou MQ; Du Y; Liu YW; Wang YZ; He YQ; Yang CX; Wang WJ; Gao F

INSTITUCIÓN / INSTITUTION: - Department of Clinical Laboratory, the Sixth People's Hospital, Shanghai Jiao-tong University School of Medicine, 600 Yi-shan Road, Shanghai 200233, People's Republic of China. gao3507@126.com.

RESUMEN / SUMMARY: - BACKGROUND: Carcinoembryonic antigen-related cell adhesion molecule 1 (CEACAM1) is a multifunctional Ig-like cell adhesion molecule that has a wide range of biological functions. According to previous reports, serum CEACAM1 is dysregulated in different malignant tumours and associated with tumour progression. However, the serum CEACAM1 expression in non-small-cell lung carcinomas (NSCLC) is unclear. The different expression ratio of CEACAM1-S and CEACAM1-L isoform has seldom been investigated in NSCLC. This research is intended to study the serum CEACAM1 and the ratio of CEACAM1-S/L isoforms in NSCLC. METHODS: The expression of the serum CEACAM1 was determined by enzyme-linked immunosorbent assay. The protein expression and the location of CEACAM1 in tumours were observed by immunohistochemical staining. The CEACAM1 mRNA levels in tumour and normal adjacent tissues were measured using quantitative real-time PCR, and the expression patterns and the rate of CEACAM1-S and CEACAM1-L were analysed by reverse transcription-PCR. RESULTS: Serum CEACAM1 levels were significantly higher in NSCLC patients compared with that from normal healthy controls ($P < 0.0001$). 17 patients (81%) among 21 showed high expression of CEACAM1 by immunohistochemical staining. Although no significant differences were found between tumour and normal tissues on mRNA expression levels of CEACAM1 ($P > 0.05$), the CEACAM1-S and the CEACAM1-S/L (S: L) ratios were significantly higher in tumour than normal tissues ($P < 0.05$). CONCLUSIONS: Our data indicated that the serum levels of CEACAM1 could discriminate lung cancer patients from health donors and that CEACAM1 might be a useful marker in early diagnosis of NSCLC. Moreover, our results showed that the expression patterns of CEACAM1 isoforms could be changed during oncogenesis, even when total CEACAM1 in tumour tissues did not show significant changes. Our study suggested that the expression ratios of CEACAM1-S/CEACAM1-L might be a better diagnostic indicator in NSCLC than the quantitative changes of CEACAM1.

[647]

TÍTULO / TITLE: - TIMP-2 modulates cancer cell transcriptional profile and enhances E-cadherin/beta-catenin complex expression in A549 lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncotarget. 2013 Jan 27;4(1):163-73. Print 2013 Jan.

AUTORES / AUTHORS: - Bourbouli D; Han H; Jensen-Taubman S; Gavil N; Isaac B; Wei B; Neckers L; Stetler-Stevenson WG

INSTITUCIÓN / INSTITUTION: - Radiation Oncology Branch, Center for Cancer Research, National Cancer Institute, Advanced Technology Center, 8717 Grovemont Circle, Bethesda, MD, USA.

RESUMEN / SUMMARY: - Tissue Inhibitor of Metalloproteinase 2 (TIMP-2) plays an essential role in regulating matrix remodeling, cell growth, differentiation, angiogenesis and apoptosis in vitro and in vivo. We have recently shown that TIMP-2-mediated inhibition of tumor growth is independent of matrix metalloproteinase-mediated mechanisms, and is a consequence of modulating both the tumor cells and the tumor microenvironment. In the current study we aim to identify the molecular pathways associated with these effects. We analyzed the transcriptional profile of the human lung cancer cell line A549 upon overexpression of TIMP-2 and Ala+TIMP-2 (mutant that does not inhibit MMP activity), and we found changes in gene expression predominantly related to decreased tumor development and metastasis. Increased E-cadherin expression in response to both TIMP-2 and Ala+TIMP-2 expression was confirmed by real time quantitative RT-PCR and immunoblotting. A549 cells treated with epidermal growth factor (EGF) displayed loss of cobblestone morphology and cell-cell contact, while cells overexpressing TIMP-2 or Ala+TIMP-2 were resistant to EGF-induced morphological changes. Moreover, exogenous treatment with recombinant Ala+TIMP-2 blocked EGF induced down-regulation of E-cadherin. In vivo, immunohistochemistry of A549 xenografts expressing either TIMP-2 or Ala+TIMP-2 demonstrated increased E-cadherin protein levels. More importantly, transcriptional profile analysis of tumor tissue revealed critical pathways associated with effects on tumor-host interaction and inhibition of tumor growth. In conclusion, we show that TIMP-2 promotes an anti-tumoral transcriptional profile in vitro and in vivo, including upregulation of E-cadherin, in A549 lung cancer cells.

[648]

TÍTULO / TITLE: - A Hydroalcoholic Extract from the Leaves of Nerium oleander Inhibits Glycolysis and Induces Selective Killing of Lung Cancer Cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Planta Med. 2013 Jul 3.

●● Enlace al texto completo (gratis o de pago) [1055/s-0032-1328715](#)

AUTORES / AUTHORS: - Calderon-Montano JM; Burgos-Moron E; Orta ML; Mateos S; Lopez-Lazaro M

INSTITUCIÓN / INSTITUTION: - Department of Pharmacology, Faculty of Pharmacy, University of Seville, Seville, España.

RESUMEN / SUMMARY: - Recent evidence suggests that cardiac glycosides might be used for the treatment of cancer. The ornamental shrub Nerium oleander has been used in traditional medicine for treating several disorders including cancer, and extracts from the leaves of this plant have already entered phase I clinical trials. In this communication, we have prepared a hydroalcoholic extract from the leaves of Nerium oleander (containing 4.75 +/- 0.32 % of

cardenolides) and have assessed its cytotoxic activity in A549 lung cancer cells vs. MRC5 nonmalignant lung fibroblasts. The results showed that the cytotoxicity of the Nerium oleander extract against the cancer cell line was significantly higher than that against the nonmalignant cell line, with a potency and selectivity similar to those of the anticancer drug cisplatin. Pretreatment of A549 cells with the antioxidants N-acetylcysteine and catalase slightly prevented the cytotoxicity of the extract, therefore suggesting that the formation of reactive oxygen species participates in its cytotoxic activity but does not play a major role. Nerium oleander extract-induced cytotoxicity and DNA damage (gamma-H2AX focus formation) were slightly higher in cells lacking BRCA2 (deficient in homologous recombination repair) than in parental cells; this indicates that the induction of DNA damage may also play a role in the cytotoxicity of the extract. Nerium oleander extract induced a marked inhibition of glycolysis (glucose consumption and lactate production) in A549 cells, comparable to that of the glycolysis inhibitor dichloroacetate (currently in clinical development for cancer therapy). Because platinum compounds are widely used in the treatment of lung cancer, we tested the cytotoxicity of several combinations of cisplatin with the extract and found a moderate synergism when Nerium oleander extract was administered after cisplatin but a moderate antagonism when it was added before cisplatin. Our results suggest that extracts from Nerium oleander might induce anticancer effects in patients with lung cancer and support their possible advancement into phase II clinical trials for the treatment of this type of cancer.

[649]

TÍTULO / TITLE: - Calretinin mediates apoptosis in small cell lung cancer cells expressing tetraspanin CD9.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - FEBS Open Bio. 2013 May 10;3:225-30. doi: 10.1016/j.fob.2013.04.005. Print 2013.

●● Enlace al texto completo (gratis o de pago) [1016/j.fob.2013.04.005](#)

AUTORES / AUTHORS: - He P; Kuhara H; Tachibana I; Jin Y; Takeda Y; Tetsumoto S; Minami T; Kohmo S; Hirata H; Takahashi R; Inoue K; Nagatomo I; Kida H; Kijima T; Naka T; Morii E; Kawase I; Kumanogoh A

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Allergy and Rheumatic Diseases, Osaka University Graduate School of Medicine, Osaka 565-0871, Japan ; Department of Respiratory Medicine, The Second Affiliated Hospital, School of Medicine, Xi'an Jiaotong University, Xi'an 71004, China.

RESUMEN / SUMMARY: - A majority of small cell lung cancer (SCLC) cells lack a metastasis suppressor, tetraspanin CD9, and CD9 expression promotes their apoptosis. By a proteomics-based approach, we compared an SCLC cell line with its CD9 transfectant and found that a calcium-binding neuronal protein, calretinin, is upregulated in CD9-positive SCLC cells. Ectopic or anticancer

drug-induced CD9 expression upregulated calretinin, whereas CD9 knockdown down-regulated calretinin in SCLC cells. When calretinin was knocked down, CD9-positive SCLC cells revealed increased Akt phosphorylation and decreased apoptosis. These results suggest that CD9 positively regulates the expression of calretinin that mediates proapoptotic effect in SCLC cells.

[650]

TÍTULO / TITLE: - Aberrant promoter methylation of cell adhesion-related genes associated with clinicopathologic features in non-small cell lung cancer in China.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Biomark. 2013 Jan 1;13(2):115-22. doi: 10.3233/CBM-130341.

●● Enlace al texto completo (gratis o de pago) [3233/CBM-130341](#)

AUTORES / AUTHORS: - Xu PW; Xu HY; Liu XN; Zhang CY; Tan C; Chen CM; Zhang H; Jin YT

INSTITUCIÓN / INSTITUTION: - Environmental Epigenetics Laboratory, Department of Environmental Medicine, School of Medicine, Zhejiang University, Hangzhou, Zhejiang, China.

RESUMEN / SUMMARY: - PURPOSE: The aim of this study was to investigate the methylation status of three cell adhesion-related genes including CDH1, TSLC1 and TIMP3 in non-small cell lung cancer and explore its association with clinicopathologic features and various environmental risk factors. METHODS: We detected the aberrant methylation presence of these genes by methylation-specific polymerase chain reaction and analyzed the potential correlations with multivariate logistic regression model as well as stepwise logistic regression. RESULTS: For CDH1, promoter methylation was less frequent in adenocarcinomas than adenocarcinomas (OR=0.35, 95%CI=0.13-0.96); pickled food increased the methylation frequency (OR=2.23, 95%CI=1.09-4.54) while light smoking and fruit intake decreased that (OR=0.43, 95%CI=0.19-0.97; OR=0.37, 95%CI=0.15-0.95). For TSLC1, males and toxin exposure increased methylation frequency (OR=6.25, 95%CI=1.05-37.13; OR=2.42, 95%CI=1.01-5.77) while light smoking and radiation exposure decreased that (OR=0.14, 95%CI=0.03-0.60; OR=0.17, 95%CI=0.04-0.87). For TIMP3, males showed lower methylation frequency than females (OR=0.18, 95%CI=0.04-0.88) while central lung cancer, heavy smoking and radiation exposure presented higher aberrant DNA methylation status (OR=2.19, 95%CI=1.07-4.52; OR=6.99, 95%CI=1.32-37.14; OR=2.30, 95%CI=1.04-5.08). CONCLUSIONS: Aberrant promoter methylation of cell adhesion-related tumor suppressor genes in lung cancer displayed varieties of gene-specific correlations with clinicopathologic features and various environmental risk factors.

[651]

TÍTULO / TITLE: - hsa-miR29b, a critical downstream target of non-canonical Wnt signaling, plays an anti-proliferative role in non-small cell lung cancer cells via targeting MDM2 expression.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biol Open. 2013 May 22;2(7):675-85. doi: 10.1242/bio.20134507. Print 2013 Jul 15.

●● Enlace al texto completo (gratis o de pago) 1242/bio.20134507

AUTORES / AUTHORS: - Avasarala S; Van Scoyk M; Wang J; Sechler M; Vandervest K; Brzezinski C; Weekes C; Edwards MG; Arcaroli J; Davis RE; Bikkavilli RK; Winn RA

INSTITUCIÓN / INSTITUTION: - Division of Pulmonary and Critical Care Sciences, School of Medicine, University of Colorado, Anschutz Medical Campus, Aurora, CO 80045, USA.

RESUMEN / SUMMARY: - In non-small cell lung cancer cell lines, activation of beta-catenin independent signaling, via Wnt7a/Frizzled9 signaling, leads to reversal of cellular transformation, reduced anchorage-independent growth and induction of epithelial differentiation. miRNA expression profiling on a human lung adenocarcinoma cell line (A549) identified hsa-miR29b as an important downstream target of Wnt7a/Frizzled9 signaling. We show herein that hsa-miR29b expression is lost in non-small cell lung cancer (NSCLC) cell lines and stimulation of beta-catenin independent signaling, via Wnt7a expression, in NSCLC cell lines results in increased expression of hsa-miR29b. Surprisingly, we also identify specific regulation of hsa-miR29b by Wnt7a but not by Wnt3, a ligand for beta-catenin-dependent signaling. Interestingly, knockdown of hsa-miR29b was enough to abrogate the tumor suppressive effects of Wnt7a/Frizzled9 signaling in NSCLC cells, suggesting that hsa-miR29b is an important mediator of beta-catenin independent signaling. Finally, we show for the first time that hsa-miR29b plays an important role as a tumor suppressor in lung cancer by targeting murine double mutant 2 (MDM2), revealing novel nodes for Wnt7a/Frizzled9-mediated regulation of NSCLC cell proliferation.

[652]

TÍTULO / TITLE: - The assessment of primitive or metastatic malignant pulmonary tumors in children.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chirurgia (Bucur). 2013 May-Jun;108(3):351-9.

AUTORES / AUTHORS: - Burnei G; Draghici I; Gavriliu S; Georgescu I; Burnei A; Vlad C; El Nayef T; Draghici L

INSTITUCIÓN / INSTITUTION: - Department of Pediatric and Orthopedic Surgery, Emergency Hospital for Children, Bucharest, Romania.

RESUMEN / SUMMARY: - BACKGROUND: The purpose of our study is to assess primitive and secondary malignant pulmonary tumors in children. The presence of lung tumors in newborns and infants is a point of interest to specialists in pediatric surgery, thoracic surgery and genetics due to the high death rate. The

5-years survival rate communicated by EUROCARE-study is less than 10% for primitive tumors and less than 15% in lung metastases. MATERIALS AND METHOD: We performed a retrospective study which analysed 11 children with pulmonary primary or metastatic tumors admitted in the Pediatric Surgery Department "Prof. Dr. Al. Pesamosca" of the Emergency Clinical Hospital for Children "Maria Sklodowska Curie", Bucharest. The analysed and operated patients underwent surgery by Prof. Dr. Al. Pesamosca and the authors during the period of 1985-2011. In our series there were 4 primitive lung tumors and 7 secondary ones: 8 underwent surgery and 2 died before being operated on. The incidence of primitive pulmonary lung malignancies is higher for females, 3 to 1, and secondary ones are more frequent in males, 6 to 1. RESULTS: Patients with primitive pulmonary malignancies were late diagnosed. Their age ranged between 1 to 6 years; 3 were operated on, out of which 2 died, and 1 operated still survives. The 7 patients with secondary pulmonary malignancies were late diagnosed, too, probably as a consequence of a late diagnosis of the origin tumor. CONCLUSIONS: Even if all malignancies require an early diagnosis and treatment, this aim regarding malignant lung tumors is still a desideratum animating all practitioners. Primitive tumors are diagnosed presenting the main clinical manifestation as broncho pulmonary infection. Secondary lung malignancies are usually asymptomatic and are diagnosed when monitoring a patient for a malignancy with another origin. Chemotherapy, radiotherapy and surgery of malignant primitive tumors or metastatic ones in children remain unsatisfactory because of the late diagnosis and the limited methods of treatment. Nowadays genetics identified the responsible oncogenes for pulmonary blastic explosion and better results could be obtained by genetic surgery.

[653]

TÍTULO / TITLE: - A rare case of lung tumor—pulmonary inflammatory pseudotumor.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pneumologia. 2013 Jan-Mar;62(1):30-2.

AUTORES / AUTHORS: - Toma CL; Belaconi IN; Dumitrache-Rujinski S; Alexe M; Saon C; Leonte D; Bogdan MA

INSTITUCIÓN / INSTITUTION: - Carol Davila University of Medicine and Pharmacy, Department of Pneumology, Bucharest, Romania. claudiatoma@yahoo.co.uk

RESUMEN / SUMMARY: - Pulmonary inflammatory pseudotumor (PIP) is a rare condition of unknown etiology. It is still a matter of debate if it represents an inflammatory lesion characterized by uncontrolled cell growth or a true neoplasm. Although mostly benign, these tumors are diagnosis and therapeutic challenges. Preoperative diagnosis can rarely be established. The treatment of choice is surgical resection which has both diagnostic and therapeutic value. We report the case of a 63-year-old male presented with clinical and imaging

picture suggestive of malignancy in the thorax. Lobectomy was performed with histological diagnosis of PIP. No evidence of tumor recurrence.

[654]

TÍTULO / TITLE: - Malignant thrombosis of the superior vena cava caused by non-small-cell lung cancer treated with radiation and erlotinib: a case with complete and prolonged response over 3 years.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Onco Targets Ther. 2013 Jul 1;6:749-53. doi: 10.2147/OTT.S45660. Print 2013.

●● Enlace al texto completo (gratis o de pago) [2147/OTT.S45660](#)

AUTORES / AUTHORS: - Wang J; Liang J; Wang W; Ouyang H; Wang L

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Cancer Hospital and Institute, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing.

RESUMEN / SUMMARY: - Most cases of superior vena cava (SVC) syndrome resulting from neoplasm, especially from lung cancer, remain a serious challenge to treat. Here, for the first time as far as we are aware, we report the case of a non-small-cell lung cancer patient with a massive SVC malignant thrombosis who was treated with thoracic irradiation and erlotinib. The treatment regimen consisted of erlotinib 150 mg/day and a total dose of 66 Gy/33 fractions delivered to the tumor, malignant thrombosis, and metastasis mediastinal lymph nodes. The malignant thrombosis responded dramatically and the combined regimen was well tolerated. After discharge, the erlotinib was prescribed as maintenance therapy. The patient was followed closely for the next 3 years. During this time, positron emission tomography/computed tomography scans and serum tumor marker screens were undertaken. By 6 months, the primary tumor showed complete response and by 9 months, the SVC thrombosis had disappeared. No sign of relapse has been found to date.

[655]

TÍTULO / TITLE: - Down-regulation of Protease-activated Receptor 4 in Lung Adenocarcinoma is Associated with a More Aggressive Phenotype.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(6):3793-8.

AUTORES / AUTHORS: - Jiang P; Yu GY; Zhang Y; Xiang Y; Hua HR; Bian L; Wang CY; Lee WH; Zhang Y

INSTITUCIÓN / INSTITUTION: - Key Laboratory of Animal Models and Human Disease Mechanisms, Kunming Institute of Zoology, Chinese Academy of Sciences, Kunming, Yunnan, China E-mail : zhangy@mail.kiz.ac.cn, zhyong@mail.kiz.ac.cn.

RESUMEN / SUMMARY: - The role of protease-activated receptors (PARs) in lung tumors is controversial. Although PAR4 is preferentially expressed in human

lung tissues, its possible significance in lung cancer has not been defined. The studies reported herein used a combination of clinical observations and molecular methods. Surgically resected lung adenocarcinomas and associated adjacent normal lung tissues were collected and BEAS-2B and NCI-H157 cell lines were grown in tissue culture. PAR4 expression was evaluated by RT-PCR, RT-qPCR, Western blotting and immunohistochemistry analysis. The results showed that PAR4 mRNA expression was generally decreased in lung adenocarcinoma tissues as compared with matched noncancerous tissues (67.7%) and was associated with poor differentiation ($p=0.017$) and metastasis ($p=0.04$). Western blotting and immunohistochemical analysis also showed that PAR4 protein levels were mostly decreased in lung adenocarcinoma tissues (61.3%), and were also associated with poor differentiation ($p=0.035$) and clinical stage ($p=0.027$). Moreover, PAR4 expression was decreased in NCI-H157 cells as compared with BEAS-2B cells. In conclusion, PAR4 expression is significantly decreased in lung adenocarcinoma, and down-regulation of PAR4 is associated with a more clinically aggressive phenotype. PAR4 may acts as a tumor suppressor in lung adenocarcinoma.

[656]

TÍTULO / TITLE: - Determinants of Survival in Advanced Non-Small Cell Lung Cancer in the Era of Targeted Therapies.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 1. pii: S1525-7304(13)00101-0. doi: 10.1016/j.clcc.2013.05.002.

●● Enlace al texto completo (gratis o de pago) [1016/j.clcc.2013.05.002](#)

AUTORES / AUTHORS: - Bauml J; Mick R; Zhang Y; Watt CD; Vachani A; Aggarwal C; Evans T; Langer C

INSTITUCIÓN / INSTITUTION: - Abramson Cancer Center, Hospital of the University of Pennsylvania, Philadelphia, PA; Department of Medicine, Hospital of the University of Pennsylvania, Philadelphia, PA. Electronic address: joshua.bauml@gmail.com.

RESUMEN / SUMMARY: - BACKGROUND: Molecular profiling of non-small cell lung cancer (NSCLC) samples has a profound impact on choice of therapy. However, it is less clear whether EGFR and KRAS mutations are prognostic outside of a trial-based treatment paradigm. METHODS: We performed a retrospective chart review of 513 patients with NSCLC undergoing EGFR and KRAS mutational analysis at the Hospital of the University of Pennsylvania between May 2008 and November 2011. Survival analysis was based on the 376 patients who received systemic treatment, and their survival was determined from the date of initiation of systemic therapy. RESULTS: The median overall survival (OS) was 30.8 months (95% confidence interval [CI], 24.7-36.9). Neither EGFR mutational status ($P = .09$) nor KRAS mutational status (0.69) was associated with OS. Female sex ($P < .001$), never smoker

status ($P = .01$), better performance status (PS) ($P < .001$), lower Charlson Comorbidity Index ($P < .001$), and lower age-weighted index ($P < .001$) were associated with prolonged survival. The presence of bone metastases ($P = .001$) and liver metastases ($P = .004$) was also associated with a shortened survival. In a multivariable regression that adjusted for stage, we demonstrated that male gender ($P = .002$), worse Eastern Cooperative Oncology Group PS ($P = .01$), metastases to bone ($P = .03$), and higher age-weighted comorbidity index ($P = .001$) were independent prognostic factors for shorter survival. EGFR mutation status was not prognostic ($P = .85$). CONCLUSION: In our series, EGFR and KRAS do not function as prognostic determinants for NSCLC.

[657]

TÍTULO / TITLE: - MicroRNA-29^a regulates the benzo[a]pyrene dihydrodiol epoxide-induced DNA damage response through Cdc7 kinase in lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncogenesis. 2013 Jul 22;2:e57. doi: 10.1038/oncsis.2013.20.

●● Enlace al texto completo (gratis o de pago) 1038/oncsis.2013.20

AUTORES / AUTHORS: - Barkley LR; Santocanale C

INSTITUCIÓN / INSTITUTION: - Centre for Chromosome Biology and National Centre for Biomedical Engineering Science, School of Natural Sciences, National University of Ireland Galway, Galway, Ireland.

RESUMEN / SUMMARY: - Cdc7 kinase is a key regulator of DNA replication and has an important role in the cellular DNA damage response by controlling checkpoint signaling and cell survival. Yet, how the activity of Cdc7 kinase is regulated is poorly understood. In silico analysis identified microRNA-29 (miR-29)-binding sites in the 3'-untranslated region (UTR) of both Cdc7 and its activating subunit Dbf4. We show that miR-29^a binds to Cdc7 and Dbf4 3'-UTRs and regulates kinase levels. We find that in response to DNA damage, upregulation of Cdc7 kinase correlates with a downregulation in miR-29^a. Enforced miR-29^a expression prevents the accumulation of Cdc7 in response to the environmental genotoxin, benzo[a]pyrene dihydrodiol epoxide (BPDE) present in cigarette smoke, resulting in aberrant checkpoint signaling and increased cell lethality. As BPDE sensitivity was rescued by overexpression of miRNA-resistant Cdc7/Dbf4, we propose that Cdc7 kinase is an important target of miR-29^a in determining cell survival from genotoxic stress caused by this environmental toxin.

[658]

TÍTULO / TITLE: - Cytoreductive Surgery (CRS) and Hyperthermic Intraperitoneal Chemotherapy (HIPEC) for Peritoneal Mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Acad Med Singapore. 2013 Jun;42(6):291-6.

AUTORES / AUTHORS: - Tan GH; Cheung M; Chanyaputhipong J; Soo KC; Teo MC

INSTITUCIÓN / INSTITUTION: - Department of General Surgery, Singapore General Hospital, Singapore.

RESUMEN / SUMMARY: - Introduction: Peritoneal mesothelioma is a rare neoplasm. Due to the limited understanding of its biology and behaviour, peritoneal mesothelioma poses a diagnostic and management challenge. The management of peritoneal mesothelioma has been controversial; systemic chemotherapy, palliative surgery and cytoreductive surgery (CRS) with intraoperative hyperthermic intraperitoneal chemotherapy (HIPEC) have been described. Materials and Methods: This study shares our experience with cytoreductive surgery and HIPEC for 5 out of the 6 cases of peritoneal mesotheliomas treated surgically, at a single institution in Singapore over the past 2 years. Computed tomography (CT) scans, positron emission tomography (PET)-CT scans and tumour markers were performed preoperatively but were not conclusive for the disease. All 6 cases presented to the Department of Surgical Oncology at National Cancer Centre Singapore, were diagnosed by histology of intraoperative biopsies. The combination of aggressive cytoreductive surgery and HIPEC was performed in 5 patients, with abandonment of procedure in 1 with extensive disease, who was treated with systemic chemotherapy instead. Results: Median duration of surgery, median length of hospital stay, and median follow-up duration were 7.04 hours, 11 days, and 15 months respectively. One postoperative morbidity relating to chemical peritonitis required exploratory laparotomy with good outcome. There were no mortality. All patients are alive at the last follow-up with no evidence of recurrences at 4 to 31 months from the time of their surgery. Conclusion: Peritoneal mesothelioma is a rare disease that requires early diagnosis and can be effectively treated by CRS and HIPEC in selected group of patients.

[659]

TÍTULO / TITLE: - The effect of lung cancer on cytokine expression in peripheral blood mononuclear cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 6;8(6):e64456. doi: 10.1371/journal.pone.0064456. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0064456](https://doi.org/10.1371/journal.pone.0064456)

AUTORES / AUTHORS: - Chang DH; Rutledge JR; Patel AA; Heerdt BG; Augenlicht LH; Korst RJ

INSTITUCIÓN / INSTITUTION: - Center for Cancer Research and Genomic Medicine, The Daniel and Gloria Blumenthal Cancer Center, Paramus, New Jersey, United States of America.

RESUMEN / SUMMARY: - The purpose of this study is to evaluate cytokine expression by peripheral blood mononuclear cells (PBMC) from stage I lung cancer patients and to confirm these expression patterns by exposing PBMCs to lung cancer cells in vitro. Five altered cytokines in stage I lung cancer patients (CCL3, IL8, IL1beta, CXCL10, sIL2Ralpha) were identified in plasma from subjects (n = 15) before and after resection using a 30-plex panel protein assay. Gene expression studies using quantitative RT-qPCR were performed on PBMCs from stage I lung cancer patients (n = 62) before and after resection, and compared to non-cancer patients (n = 32) before and after surgery for benign disease. Co-culture experiments that exposed healthy donor PBMCs to lung cancer cells in vitro were performed to evaluate the effect on PBMC cytokine expression. PBMC gene expression of CCL3, IL8 and IL1beta was higher in lung cancer patients compared to the same patients at each of four sequential timepoints after removal of their tumors, while CXCL10 and IL2Ralpha were essentially unchanged. This pattern was also detected when lung cancer patients were compared to non-cancer patients. When non-cancer patients underwent surgery for benign diseases, these cytokine expression changes were not demonstrable. Lung cancer cell lines, but not benign bronchial epithelial cells, induced similar changes in cytokine gene and protein expression by healthy donor PBMCs in an in vitro co-culture system. We conclude that PBMCs from stage I lung cancer patients possess distinct cytokine expression patterns compared to both non-cancer patients, and lung cancer patients following tumor removal. These expression patterns are replicated by healthy donor PBMCs exposed to lung cancer cell lines, but not benign bronchial epithelial cells in vitro. These findings have implications for understanding the immune response to lung cancer.

[660]

TÍTULO / TITLE: - Yin yang gene expression ratio signature for lung cancer prognosis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jul 17;8(7):e68742. doi: 10.1371/journal.pone.0068742. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0068742](http://dx.doi.org/10.1371/journal.pone.0068742)

AUTORES / AUTHORS: - Xu W; Banerji S; Davie JR; Kassie F; Yee D; Kratzke R

INSTITUCIÓN / INSTITUTION: - Manitoba Institute of Cell Biology, University of Manitoba, Winnipeg, Canada ; Manitoba Institute of Child Health, University of Manitoba, Winnipeg, Canada ; Faculty of Pharmacy, University of Manitoba, Winnipeg, Canada.

RESUMEN / SUMMARY: - Many studies have established gene expression-based prognostic signatures for lung cancer. All of these signatures were built from training data sets by learning the correlation of gene expression with the patients' survival time. They require all new sample data to be normalized to the

training data, ultimately resulting in common problems of low reproducibility and impracticality. To overcome these problems, we propose a new signature model which does not involve data training. We hypothesize that the imbalance of two opposing effects in lung cancer cells, represented by Yin and Yang genes, determines a patient's prognosis. We selected the Yin and Yang genes by comparing expression data from normal lung and lung cancer tissue samples using both unsupervised clustering and pathways analyses. We calculated the Yin and Yang gene expression mean ratio (YMR) as patient risk scores. Thirty-one Yin and thirty-two Yang genes were identified and selected for the signature development. In normal lung tissues, the YMR is less than 1.0; in lung cancer cases, the YMR is greater than 1.0. The YMR was tested for lung cancer prognosis prediction in four independent data sets and it significantly stratified patients into high- and low-risk survival groups ($p = 0.02$, HR = 2.72; $p = 0.01$, HR = 2.70; $p = 0.007$, HR = 2.73; $p = 0.005$, HR = 2.63). It also showed prediction of the chemotherapy outcomes for stage II & III. In multivariate analysis, the YMR risk factor was more successful at predicting clinical outcomes than other commonly used clinical factors, with the exception of tumor stage. The YMR can be measured in an individual patient in the clinic independent of gene expression platform. This study provided a novel insight into the biology of lung cancer and shed light on the clinical applicability.

[661]

TÍTULO / TITLE: - Bloody pericardial tamponade in a child treated for pneumonia mimicking a lung tumor and infiltration of the heart.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Contemp Oncol (Pozn). 2013;17(2):225-7. doi: 10.5114/wo.2013.34630. Epub 2013 Apr 29.

●● [Enlace al texto completo \(gratis o de pago\) 5114/wo.2013.34630](#)

AUTORES / AUTHORS: - Haponiuk I; Chojnicki M; Jaworski R; Zielinski J; Irga-Jaworska N; Gierat-Haponiuk K; Sroka M

INSTITUCIÓN / INSTITUTION: - Department of Pediatric Cardiac Surgery, Mikolaj Kopernik Pomeranian Centre of Traumatology, Gdansk, Poland.

RESUMEN / SUMMARY: - We present the dramatic course of a female 5-year-old child with pneumonia and symptoms similar to local compression of the pericardium by a tumorous mass originating from the left lung. The child was treated with antibiotics for pneumonia with bilateral pleural effusions that required chest drainage. On the 10(th) day of therapy there was sudden anemia observed with the echocardiographic finding of acute cardiac tamponade. The child was referred for emergency life-saving surgical intervention. The chest was opened via a minimally invasive mini-incision in the area of the xiphoid process and bloody tension pericardial effusion was evacuated. The laboratory and histopathology investigations were not specific for neoplastic disease or tuberculosis infection. In the further observation the girl recovered and was discharged home two weeks after tamponade drainage. Fortunately our initial

suspicion of neoplastic disease was not proved; nevertheless we would like to emphasize the need for oncologic vigilance in similar cases.

[662]

TÍTULO / TITLE: - The verapamil transporter expressed in human alveolar epithelial cells (A549) does not interact with beta-receptor agonists.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Drug Metab Pharmacokinet. 2013 Jun 25.

AUTORES / AUTHORS: - Salomon JJ; Ehrhardt C; Hosoya KI

INSTITUCIÓN / INSTITUTION: - School of Pharmacy and Pharmaceutical Sciences, Trinity College Dublin.

RESUMEN / SUMMARY: - Affinity of different organs for verapamil is highly variable and organ-specific. For example, the drug exhibits high levels of accumulation in lung tissues. A transporter recognising verapamil as substrate has previously been identified in human retinal pigment epithelial (RPE) and in rat retinal capillary endothelial (TR-iBRB2) cells. This transporter is distinct from any of the cloned organic cation transporters. Therefore, we hypothesised that the verapamil transporter is also functionally expressed in the human respiratory mucosa. Moreover, we tested the hypothesis that this transporter interacts with pulmonary administered cationic drugs such as beta2-agonists. The uptake of [3H]-verapamil was studied in A549 human alveolar epithelial cell monolayers at different times and concentrations. The influence of extracellular proton concentration and various organic cations on verapamil uptake was determined. Verapamil uptake into A549 cells was time- and concentration-dependent, sensitive to pH and had a Km value of 39.8 +/- 8.2 microM. Verapamil uptake was also sensitive to inhibition by amantadine, quinidine and pyrilamine, but insensitive to other typical modulators of organic cation and choline transporters. Whilst we demonstrated functional activity of the elusive verapamil transporter at the lung epithelium, our data suggest that this transporter does not interact with beta2-agonists at therapeutic concentrations.

[663]

TÍTULO / TITLE: - Circumferential or sectored beam arrangements for stereotactic body radiation therapy (SBRT) of primary lung tumors: Effect on target and normal-structure dose-volume metrics.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Med Dosim. 2013 Jun 27. pii: S0958-3947(13)00063-0. doi: 10.1016/j.meddos.2013.05.002.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1016/j.meddos.2013.05.002](#)

AUTORES / AUTHORS: - Rosenberg MW; Kato CM; Carson KM; Matsunaga NM; Arao RF; Doss EJ; McCracken CL; Meng LZ; Chen Y; Laub WU; Fuss M; Tanyi JA

INSTITUCIÓN / INSTITUTION: - Broad Institute of MIT and Harvard, Cambridge, MA; Department of Physics, Brandeis University, Waltham, MA.

RESUMEN / SUMMARY: - To compare 2 beam arrangements, sectorized (beam entry over ipsilateral hemithorax) vs circumferential (beam entry over both ipsilateral and contralateral lungs), for static-gantry intensity-modulated radiation therapy (IMRT) and volumetric-modulated arc therapy (VMAT) delivery techniques with respect to target and organs-at-risk (OAR) dose-volume metrics, as well as treatment delivery efficiency. Data from 60 consecutive patients treated using stereotactic body radiation therapy (SBRT) for primary non-small-cell lung cancer (NSCLC) formed the basis of this study. Four treatment plans were generated per data set: IMRT/VMAT plans using sectorized (-s) and circumferential (-c) configurations. The prescribed dose (PD) was 60Gy in 5 fractions to 95% of the planning target volume (PTV) (maximum PTV dose ~ 150% PD) for a 6-MV photon beam. Plan conformity, R50 (ratio of volume circumscribed by the 50% isodose line and the PTV), and D2cm (Dmax at a distance ≥ 2 cm beyond the PTV) were evaluated. For lungs, mean doses (mean lung dose [MLD]) and percent V30/V20/V10/V5Gy were assessed. Spinal cord and esophagus Dmax and D5/D50 were computed. Chest wall (CW) Dmax and absolute V30/V20/V10/V5Gy were reported. Sectorized SBRT planning resulted in significant decrease in contralateral MLD and V10/V5Gy, as well as contralateral CW Dmax and V10/V5Gy (all $p < 0.001$). Nominal reductions of Dmax and D5/D50 for the spinal cord with sectorized planning did not reach statistical significance for static-gantry IMRT, although VMAT metrics did show a statistically significant decrease (all $p < 0.001$). The respective measures for esophageal doses were significantly lower with sectorized planning ($p < 0.001$). Despite comparable dose conformity, irrespective of planning configuration, R50 significantly improved with IMRT-s/VMAT-c ($p < 0.001/p = 0.008$), whereas D2cm significantly improved with VMAT-c ($p < 0.001$). Plan delivery efficiency improved with sectorized technique ($p < 0.001$); mean monitor unit (MU)/cGy of PD decreased from 5.8 +/- 1.9 vs 5.3 +/- 1.7 (IMRT) and 2.7 +/- 0.4 vs 2.4 +/- 0.3 (VMAT). The sectorized configuration achieves unambiguous dosimetric advantages over circumferential arrangement in terms of esophageal, contralateral CW, and contralateral lung sparing, in addition to being more efficient at delivery.

[664]

TÍTULO / TITLE: - Dose escalation with stereotactic body radiation therapy boost for locally advanced non small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Radiat Oncol. 2013 Jul 10;8(1):179.

●● Enlace al texto completo (gratis o de pago) [1186/1748-717X-8-179](#)

AUTORES / AUTHORS: - Karam SD; Horne ZD; Hong RL; McRae D; Duhamel D; Nasr NM

RESUMEN / SUMMARY: - INTRODUCTION: Low survival outcomes have been reported for the treatment of locally advanced non small cell lung cancer (LA-NSCLC) with the standard of care treatment of concurrent chemoradiation (cCRT). We present our experience of dose escalation using stereotactic body radiosurgery (SBRT) following conventional cCRT for patients with LA-NSCLC. METHODS: Sixteen patients with a median age of 67.5 treated with fractionated SBRT from 2010 to 2012 were retrospectively analyzed. Nine (56%) of the patients had stage IIIB, 6 (38%) has stage IIIA, and 1 (6%) had recurrent disease. Majority of the patients (63%) presented with N2 disease. All patients had a PET CT for treatment planning. Patients received conventional cCRT to a median dose of 50.40 Gy (range 45--60) followed by an SBRT boost with an average dose of 25 Gy (range 20--30) given over 5 fractions. RESULTS: With a median follow-up of 14 months (range, 1--14 months), 1-year overall survival (OS), progression free survival (PFS), local control (LC), regional control (RC), and distant control (DC) rates were, 78%, 42%, 76%, 79%, and 71%, respectively. Median times to disease progression and regional failure were 10 months and 18 months, respectively. On univariate analysis, advanced age and nodal status were worse prognostic factors of PFS ($p < 0.05$). Four patients developed radiation pneumonitis and one developed hemoptysis. Treatment was interrupted in one patient who required hospitalization due to arrhythmias and pneumonia. CONCLUSION: Risk adaptive dose escalation with SBRT following external beam radiotherapy is possible and generally tolerated treatment option for patients with LA-NSCLC.

[665]

TÍTULO / TITLE: - Expression and Significance of Hypoxia Inducible Factor-1alpha and Lysyl Oxidase in Non-small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(6):3613-8.

AUTORES / AUTHORS: - Ping W; Jiang WY; Chen WS; Sun W; Fu XN

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, Hubei, China E-mail : fuxn@yahoo.cn.

RESUMEN / SUMMARY: - Object: To detect expression of hypoxia inducible factor-1alpha (HIF-1alpha) and lysyl oxidase (LOX) in non-small cell lung cancer (NSCLC) and explore their roles in prognosis. Methods: The mRNA levels of HIF-1alpha and LOX were investigated by real-time reverse-transcriptase polymerase chain reaction in 40 cases of tumour and paired normal tissues. In addition, protein expression of HIF-1alpha and LOX was examined by immunohistochemistry in 82 cases of tumour and 45 paired normal tissues. The relationship between HIF-1alpha or LOX and clinicopathologic characteristics, as well as the correlation between HIF-1alpha and LOX, were also examined. Kaplan-Meier survival curves and the log-rank test were used to analyze progression-free survival. Results: HIF-1alpha or LOX

mRNA levels in tumor tissues was significantly higher than those in paired normal tissues ($p < 0.01$). Positive HIF-1alpha or LOX protein expression in tumor tissues was noted in 46/82 (56.1%) and 49/82 (59.8%) of the cases, respectively, being significantly higher than those in paired normal tissues ($p < 0.05$). There was significant correlation between the expression of HIF-1alpha or LOX and tumor size, lymph node metastasis and pathological stage ($p < 0.05$). The expression of HIF-1alpha and LOX had a significant inverse impact on survival of patients with NSCLC. Conclusion: HIF-1alpha and LOX may play a pivotal role in the development of NSCLC, and may act in synergy to promote the progression of NSCLC.

[666]

TÍTULO / TITLE: - Influence on the behavior of lung cancer H1299 cells by silencing SLC35F2 expression.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Cell Int. 2013 Jul 23;13(1):73. doi: 10.1186/1475-2867-13-73.

●● [Enlace al texto completo \(gratis o de pago\) 1186/1475-2867-13-73](#)

AUTORES / AUTHORS: - Li X; Li J; Jiang G; Bu L; Yang F; Liu J; Wang J

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Peking University People's Hospital, No 11, Xizhimen South, 100044 Beijing, China.

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RESUMEN / SUMMARY: - BACKGROUND: To investigate the effects of RNA interference-mediated downregulation of Human Solute Carrier Family 35 member F2 (SLC35F2) expression on the biological behavior of lung cancer H1299 cells. METHODS: The lentiviral vector of small interfering RNA targeting SLC35F2 was introduced into H1299 cells by liposome-mediated transfection. Expression of the SLC35F2 protein was measured by western blot. The proliferation of H1299 cells was determined by Cell Counting Kit-8 assay. The migration of H1299 cells was measured by Transwell migration assay. Cell cycle analysis used fluorescence-activated cell sorting. RESULTS: SLC35F2 expression was markedly downregulated in H1299 cell clone (transfected with the lentiviral vector harboring small interfering RNA targeting SLC35F2). Proliferation decreased significantly compared with that of non-transfected H1299 cells. Transwell migration assay showed that fewer cells moved through the artificial basement membrane compared with untransfected H1299 cells (38.3 +/- 5.7 vs. 113.5 +/- 8.5, $P < 0.05$). The cell cycle of H1299 cells was changed, the percentage of H1299 cells in S and G2/M phases being significantly decreased compared with untransfected H1299 cells (S phase: 15.3% +/- 3.0% vs. 27.0% +/- 5.4%, $P > 0.05$; G2/M phase: 3.0% +/- 1.1% vs. 10.5% +/- 1.7%, $P < 0.05$), whereas the percentage of H1299 cells in G0/G1 phase increased markedly (81.7% +/- 4.0% vs. 62.5% +/- 1.9%, $P < 0.05$). CONCLUSION: RNA interference-mediated downregulation of SLC35F2

expression by lentiviral vector can attenuate the proliferation, migration and invasion of H1299 cells.

[667]

TÍTULO / TITLE: - The MPO-463G>A Polymorphism and Lung Cancer Risk: A Meta-Analysis Based on 22 Case-Control Studies.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 20;8(6):e65778. doi: 10.1371/journal.pone.0065778. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0065778](#)

AUTORES / AUTHORS: - Yang JP; Wang WB; Yang XX; Yang L; Ren L; Zhou FX; Hu L; He W; Li BY; Zhu Y; Jiang HG; Zhou YF

INSTITUCIÓN / INSTITUTION: - Department of Radiotherapy Oncology, The Third Affiliated Hospital of Wuhan University, Wuhan, Hubei, People's Republic of China.

RESUMEN / SUMMARY: - BACKGROUND: Myeloperoxidase (MPO) is an endogenous oxidant enzyme that produces reactive oxygen species (ROS) and may be involved in lung carcinogenesis. The MPO-463G>A polymorphism influences MPO transcription and has been associated with lung cancer susceptibility. However, the association between the MPO-463G>A polymorphism and lung cancer risk remains controversial. METHOD: To investigate the effect of this polymorphism on lung cancer susceptibility, we performed a meta-analysis based on 22 published case-control studies including 7,520 patients with lung cancer and 8,600 controls. Odds ratios (ORs) with 95% confidence intervals (CIs) were used to assess the strength of the association. RESULTS: Overall, there was no evidence for significant association between MPO-463G>A polymorphism and lung cancer susceptibility (for AA versus GG: OR = 0.91, 95%CI = 0.67-1.24; for GA versus GG: OR = 0.87, 95% CI = 0.78-0.98; for AA/GA versus GG: OR = 0.90, 95% CI = 0.80-1.01; for AA versus GA/GG: OR = 0.96, 95% CI = 0.72-1.28). In the stratified analyses by ethnicity, source of controls and smoking status, we also did not find any significant association between them. CONCLUSIONS: In summary, this meta-analysis suggests MPO-463G>A polymorphism may not be a risk factor for developing lung cancer. However, further prospective well-designed population-based studies with larger sample size are expected to validate the results.

[668]

TÍTULO / TITLE: - Prognostic Value of Phosphorylated mTOR/RPS6KB1 in Non-small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(6):3725-8.

AUTORES / AUTHORS: - Zhang Y; Ni HJ; Cheng DY

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, West China Hospital of Sichuan University, Chengdu, China E-mail : hxchengdeyun@163.com.

RESUMEN / SUMMARY: - Background: The mammalian target of rapamycin (mTOR) /RPS6KB1 activation has recently been implicated in tumour development, but its role in lung cancer remains unclear. The aim of this study was to explore the role of mTOR/RPS6KB1 signaling pathway in non-small-cell lung cancer (NSCLC). Methods: Immunohistochemistry was performed to assess the expression of phosphorylated mammalian target of rapamycin (p-mTOR) and its downstream ribosomal phosphorylated RPS6KB1 (p-RPS6KB1) in NSCLC patients. We also analyzed p-mTOR/ p-RPS6KB1 protein expression in 45 fresh NSCLC tissues using Western blotting. Results: The expression level of p-mTOR and p-RPS6KB1 was significantly higher in NSCLC tumor specimens than that in adjacent noncancerous normal lung tissues (P<0.01). p-mTOR expression correlated with p-RPS6KB1. Furthermore, high expression level of p-mTOR or p-RPS6KB1 in NSCLC was associated with a shorter overall survival (both P<0.01). Multivariate analysis indicated high level of p-mTOR expression was an independent prognostic factor (HR=2.642, 95%CI 1.157-4.904, p=0.002). Conclusions: p-mTOR and p-RPS6KB1 could be useful prognostic markers for NSCLC.

[669]

TÍTULO / TITLE: - Huge peritoneal malignant mesothelioma mimicking primary ovarian carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Med Assoc Thai. 2013 Jan;96(1):107-11.

AUTORES / AUTHORS: - Tangjitgamol S; Warnnissorn M; Attakettaworn K; Puripat N

INSTITUCIÓN / INSTITUTION: - Department of Obstetrics and Gynecology, Faculty of Medicine, Vajira Hospital, University of Bangkok Metropolis, Bangkok, Thailand. siriwanonco@yahoo.com

RESUMEN / SUMMARY: - Peritoneal malignant mesothelioma (PMM) is less commonly found in female than male. The most important differential diagnosis of PMM in female patient is primary ovarian carcinoma because of their similar symptoms e.g. dyspepsia, abdominal discomfort from ascites, palpable abdominal mass, etc. However common clinical presentation of PMM is diffuse spread of peritoneal lesions without dominating tumor mass while primary ovarian tumor usually presents with large pelvic mass and smaller extra-ovarian metastatic lesions. The surgeon may make a provisional intraoperative diagnosis of PMM if both ovaries are clearly identified Unfortunately, both conditions frequently elicit fibrosis and adhesion that the exact location or the origin of tumor cannot be clearly stated. Histopathologic diagnosis of PMM is also difficult because it has three patterns of histopathology as biphasic tumors

composed of epithelial and sarcomatous components or it may be monophasic of either type. When only the epithelial component is found, serous ovarian carcinoma is the important differential diagnosis while the biphasic mesothelioma must be differentiated from malignant mesodermal mixed tumor or carcinosarcoma of the ovary. The pathologist generally requires immunohistochemical study to achieve a correct diagnosis. The clinical feature and detailed histopathologic findings of the patient with PMM will be discussed

[670]

TÍTULO / TITLE: - A novel system enhancing the endosomal escapes of peptides promotes Bak BH3 peptide inducing apoptosis in lung cancer A549 cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Target Oncol. 2013 Jun 6.

- Enlace al texto completo (gratis o de pago) [1007/s11523-013-0282-](#)

[9](#)

AUTORES / AUTHORS: - Lin N; Zheng W; Li L; Liu H; Wang T; Wang P; Ma X

INSTITUCIÓN / INSTITUTION: - School of Biotechnology and State Key Laboratory of Bioreactor Engineering, East China University of Science and Technology, Shanghai, 200237, China.

RESUMEN / SUMMARY: - Therapeutic peptides have been proven useful for treating various diseases. However, it is difficult for therapeutic peptides to reach their target sites with an effective concentration due to inefficient intracellular delivery. Although Tat transduction peptide is a promising tool to deliver therapeutic peptides into cells, the entrapment within endosomes and the nuclear localization of Tat transduction peptide severely limited the biological effects of Tat-linked cargos. In this study, we designed a novel peptide delivering system, Tat-INF7-ubiquitin (TIU), which consisted of Tat transduction peptide, endosomal escape enhancer peptide INF7, and ubiquitin protein. We found that the TIU system was able to efficiently deliver the mCherry fluorescent proteins and the apoptosis-inducing Bak BH3 peptide into the cytosol. The Bak BH3 peptide transported into the cells by the TIU system increased the apoptotic rate to 46.15 +/- 4.86 % (p < 0.001) in A549 cells, while Tat-BH3 could result in only 20.45 +/- 2.89 %. These results demonstrated that the TIU system could enhance the effects of therapeutic peptides by facilitating the transmembrane delivery of peptides into the cells and the escape of target proteins from the endosome efficiently.

[671]

TÍTULO / TITLE: - Genome-wide association study of lung cancer in Korean non-smoking women.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Korean Med Sci. 2013 Jun;28(6):840-7. doi: 10.3346/jkms.2013.28.6.840. Epub 2013 Jun 3.

- Enlace al texto completo (gratis o de pago)

[3346/jkms.2013.28.6.840](#)

AUTORES / AUTHORS: - Kim JH; Park K; Yim SH; Choi JE; Sung JS; Park JY; Choi YY; Jeon HS; Park JY; Yoon HK; Kim YH; Yoo BS; Kim YT; Hu HJ; Chung YJ; Kim H; Sung SW; Hong YC

INSTITUCIÓN / INSTITUTION: - Department of Preventive Medicine, Seoul National University College of Medicine, Seoul, Korea.

RESUMEN / SUMMARY: - Lung cancer in never-smokers ranks as the seventh most common cause of cancer death worldwide, and the incidence of lung cancer in non-smoking Korean women appears to be steadily increasing. To identify the effect of genetic polymorphisms on lung cancer risk in non-smoking Korean women, we conducted a genome-wide association study of Korean female non-smokers with lung cancer. We analyzed 440,794 genotype data of 285 cases and 1,455 controls, and nineteen SNPs were associated with lung cancer development ($P < 0.001$). For external validation, nineteen SNPs were replicated in another sample set composed of 293 cases and 495 controls, and only rs10187911 on 2p16.3 was significantly associated with lung cancer development (dominant model, OR of TG or GG, 1.58, $P = 0.025$). We confirmed this SNP again in another replication set composed of 546 cases and 744 controls (recessive model, OR of GG, 1.32, $P = 0.027$). OR and P value in combined set were 1.37 and < 0.001 in additive model, 1.51 and < 0.001 in dominant model, and 1.54 and < 0.001 in recessive model. The effect of this SNP was found to be consistent only in adenocarcinoma patients (1.36 and < 0.001 in additive model, 1.49 and < 0.001 in dominant model, and 1.54 and < 0.001 in recessive model). Furthermore, after imputation with HapMap data, we found regional significance near rs10187911, and five SNPs showed P value less than that of rs10187911 (rs12478012, rs4377361, rs13005521, rs12475464, and rs7564130). Therefore, we concluded that a region on chromosome 2 is significantly associated with lung cancer risk in Korean non-smoking women.

[672]

TÍTULO / TITLE: - Identification of lung-cancer-related genes with the shortest path approach in a protein-protein interaction network.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biomed Res Int. 2013;2013:267375. doi: 10.1155/2013/267375. Epub 2013 May 22.

- Enlace al texto completo (gratis o de pago) [1155/2013/267375](#)

AUTORES / AUTHORS: - Li BQ; You J; Chen L; Zhang J; Zhang N; Li HP; Huang T; Kong XY; Cai YD

INSTITUCIÓN / INSTITUTION: - The Key Laboratory of Stem Cell Biology, Institute of Health Sciences, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai 200031, China.

RESUMEN / SUMMARY: - Lung cancer is one of the leading causes of cancer mortality worldwide. The main types of lung cancer are small cell lung cancer (SCLC) and nonsmall cell lung cancer (NSCLC). In this work, a computational method was proposed for identifying lung-cancer-related genes with a shortest path approach in a protein-protein interaction (PPI) network. Based on the PPI data from STRING, a weighted PPI network was constructed. 54 NSCLC- and 84 SCLC-related genes were retrieved from associated KEGG pathways. Then the shortest paths between each pair of these 54 NSCLC genes and 84 SCLC genes were obtained with Dijkstra's algorithm. Finally, all the genes on the shortest paths were extracted, and 25 and 38 shortest genes with a permutation P value less than 0.05 for NSCLC and SCLC were selected for further analysis. Some of the shortest path genes have been reported to be related to lung cancer. Intriguingly, the candidate genes we identified from the PPI network contained more cancer genes than those identified from the gene expression profiles. Furthermore, these genes possessed more functional similarity with the known cancer genes than those identified from the gene expression profiles. This study proved the efficiency of the proposed method and showed promising results.

[673]

TÍTULO / TITLE: - ERCC1, MLH1, MSH2, MSH6, and betaIII-Tubulin: Resistance Proteins Associated With Response and Outcome to Platinum-based Chemotherapy in Malignant Pleural Mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jun 26. pii: S1525-7304(13)00081-8. doi: 10.1016/j.clcc.2013.04.013.

●● Enlace al texto completo (gratis o de pago) 1016/j.clcc.2013.04.013

AUTORES / AUTHORS: - Ting S; Mairinger FD; Hager T; Welter S; Eberhardt WE; Wohlschlaeger J; Schmid KW; Christoph DC

INSTITUCIÓN / INSTITUTION: - Institute of Pathology and Neuropathology, West German Cancer Center, University Hospital Essen, University Duisburg-Essen, Essen, Germany. Electronic address: saskia.ting@uk-essen.de.

RESUMEN / SUMMARY: - INTRODUCTION: Platinum-based chemotherapy is besides the standard antifolate therapy with pemetrexed, the cornerstone for treatment of patients with malignant pleural mesothelioma (MPM), and its efficacy depends on several DNA repair enzymes. Therefore, these enzymes could be biomarkers for "tailoring" chemotherapy. This study evaluated enzymes involved in repair of platinum-caused DNA damage, potentially resulting in a biomarker panel associated with patient response and outcome to platinum-based chemotherapy. MATERIAL AND METHODS: Pre- or posttreatment specimens from a total of 103 patients with MPM who were undergoing first-line chemotherapy were tested separately. Immunohistochemistry for ERCC1 (endonuclease excision repair cross-complementing 1), MLH1 (MutL homologue 1), MutS homologue (MSH) 2,

MSH6, and betaIII-tubulin protein expression, and pyrosequencing for ERCC1 codon 118 and C8092A polymorphisms were performed, and their results were correlated to clinicopathologic data. RESULTS: ERCC1, MLH1, MSH2, MSH6, and betaIII-tubulin were expressed in human MPM specimens at different intensities. When considering only pretreatment specimens, MSH6 protein levels were correlated to progression during chemotherapy (P = .0281). MLH1 protein levels (P = .0205), and ERCC1 codon 118 polymorphisms (P <= .0001) were significantly associated with progression-free survival. A significant association between ERCC1 protein levels and overall survival was noted (P = .032). Analyses of posttreatment specimens revealed significant associations between betaIII-tubulin protein levels and progression-free survival (P = .0066). ERCC1 C8092A polymorphisms were significantly associated with progression-free survival and overall survival (P = .0463 and P = .0080, respectively) in this group. CONCLUSIONS: Enzymes involved in DNA repair mechanisms are associated with patient response and outcome to platinum-based chemotherapy. Their assessment may be a helpful tool to tailor platinum-based chemotherapy of MPM patients who might expect the largest clinical benefit. Prospective validation of this biomarker panel is warranted.

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----- [674]

TÍTULO / TITLE: - Assessment of respiration-induced motion and its impact on treatment outcome for lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biomed Res Int. 2013;2013:872739. doi: 10.1155/2013/872739. Epub 2013 Jun 4.

●● Enlace al texto completo (gratis o de pago) [1155/2013/872739](#)

AUTORES / AUTHORS: - Wang Y; Bao Y; Zhang L; Fan W; He H; Sun ZW; Hu X; Huang SM; Chen M; Deng XW

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, State Key Laboratory of Oncology in Southern China, Cancer Center, Sun Yat-Sen University, Guangzhou, Guangdong 510060, China.

RESUMEN / SUMMARY: - This study presented the analysis of free-breathing lung tumor motion characteristics using GE 4DCT and Varian RPM systems. Tumor respiratory movement was found to be associated with GTV size, the superior-inferior tumor location in the lung, and the attachment degree to rigid structure (e.g., chest wall, vertebrae, or mediastinum), with tumor location being the most important factor among the other two. Improved outcomes in survival and local control of 43 lung cancer patients were also reported. Consideration of respiration-induced motion based on 4DCT for lung cancer yields individualized margin and more accurate and safe target coverage and thus can potentially improve treatment outcome.

[675]

TÍTULO / TITLE: - Specific targeting of angiogenesis in lung cancer with RGD-conjugated ultrasmall superparamagnetic iron oxide particles using a 4.7T magnetic resonance scanner.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chin Med J (Engl). 2013 Jun;126(12):2242-7.

AUTORES / AUTHORS: - Liu C; Liu DB; Long GX; Wang JF; Mei Q; Hu GY; Qiu H; Hu GQ

INSTITUCIÓN / INSTITUTION: - Cancer Center, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, Hubei 430030, China; Department of Oncology, Puai Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, Hubei 430035, China.

RESUMEN / SUMMARY: - BACKGROUND: Angiogenesis is an essential step for tumor development and metastasis. The cell adhesion molecule avbeta3 integrin plays an important role in angiogenesis and is a specific marker of tumor angiogenesis. A novel avbeta3 integrin- targeted magnetic resonance (MR) imaging contrast agent utilizing Arg-Gly-Asp (RGD) and ultrasmall superparamagnetic iron oxide particles (USPIO) (referred to as RGD-USPIO) was designed and its uptake by endothelial cells was assessed both in vitro and in vivo to evaluate the angiogenic profile of lung cancer. METHODS: USPIO were coated with -NH₃⁺ and conjugated with RGD peptides. Prussian blue staining was performed to evaluate the specific uptake of RGD-USPIO by human umbilical vein endothelial cells (HUVECs). Targeted uptake and subcellular localization of RGD-USPIO in HUVECs were confirmed by transmission electron microscopy (TEM). The ability of RGD-USPIO to noninvasively assess avbeta3 integrin positive vessels in lung adenocarcinoma A549 tumor xenografts was evaluated with a 4.7T MR scanner. Immunohistochemistry was used to detect avbeta3 integrin expression and vessel distribution in A549 tumor xenografts. RESULTS: HUVECs internalized RGD-USPIO significantly more than plain USPIO. The uptake of RGD-USPIO by HUVECs could be competitively inhibited by addition of free RGD. A significant decrease in T2 signal intensity (SI) was observed at the periphery of A549 tumor xenografts at 30 minutes (P < 0.05) and 2 hours (P < 0.01) after RGD-USPIO was injected via the tail vein. Angiogenic blood vessels were mainly distributed in the periphery of tumor xenografts with positive avbeta3 integrin expression. CONCLUSIONS: RGD-USPIO could specifically label avbeta3 integrin and be taken up by HUVECs. This molecular MR imaging contrast agent can specifically evaluate the angiogenic profile of lung cancer using a 4.7T MR scanner.

[676]

TÍTULO / TITLE: - The preclinical profile of crizotinib for the treatment of non-small-cell lung cancer and other neoplastic disorders.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Expert Opin Drug Discov. 2013 Jun 28.

●● Enlace al texto completo (gratis o de pago)

[1517/17460441.2013.813015](#)

AUTORES / AUTHORS: - Roskoski R Jr

INSTITUCIÓN / INSTITUTION: - Blue Ridge Institute for Medical Research , 3754 Brevard Road, Suite 116, Box 19, Horse Shoe, NC 28742 , USA +1 828 891 5637 ; +1 828 890 8130 ; rrj@brimr.org.

RESUMEN / SUMMARY: - Introduction: The critical role of the activity of the nucleophosmin- anaplastic lymphoma kinase (NPM-ALK) fusion protein in anaplastic large-cell lymphoma prompted drug discovery programs directed against ALK. Drug discovery efforts increased after finding that about 4% of non-small-cell lung cancers (NSCLCs) possess an EML4-ALK fusion protein. Areas covered: The author provides a review of the development of crizotinib, an orally effective c-Met and ALK protein kinase inhibitor. The article highlights its beginning with the X-ray crystallographic structure of a lead compound (PHA-0665752) bound to the active site of the kinase domain of c-Met. Expert opinion: Studies of patients with EML4-ALK-positive NSCLC showed that crizotinib was clinically effective and led to its approval in August 2011. The use of lipophilic efficiency played a crucial role in the development of crizotinib from a lead c-Met inhibitor. The use of X-ray crystal structures from lead compounds, bound to their targets, is increasing in the drug discovery process owing to its effectiveness. That the drug also inhibits ALK and ALK-fusion proteins was serendipitous, however. The discovery of the EML4-ALK fusion protein in some NSCLC patients has led to the testing and rapid approval of the compound.

[677]

TÍTULO / TITLE: - Main Histologic Types of Non-small-cell Lung Cancer Differ in Expression of Prognosis-related Genes.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 16. pii: S1525-7304(13)00078-8. doi: 10.1016/j.clcc.2013.04.010.

●● Enlace al texto completo (gratis o de pago) [1016/j.clcc.2013.04.010](#)

AUTORES / AUTHORS: - Skrzypski M; Dziadziuszko R; Jassem E; Szymanowska-Narloch A; Gulida G; Rzepko R; Biernat W; Taron M; Jelitto-Gorska M; Marjanski T; Rzyman W; Rosell R; Jassem J

INSTITUCIÓN / INSTITUTION: - Medical University of Gdansk, Department of Oncology and Radiotherapy, Gdansk, Poland. Electronic address: mkskrzypski@gumed.edu.pl.

RESUMEN / SUMMARY: - BACKGROUND: There is increasing evidence that suggests that particular histopathologic types of non-small-cell lung cancer (NSCLC) display distinct molecular characteristics. We analyzed, in lung squamous cell carcinoma (SCC) and adenocarcinoma (AC), the expression of 8 genes that constitute 2 previously reported prognostic expression signatures in

NSCLC. METHODS: Fresh-frozen tumor and normal lung samples were obtained at surgery from 135 patients with stage I-III NSCLC (89 (65.9%) SCC, 46 (34.1%) AC). Expression of CSF1 (colony stimulating factor for macrophages), carbonic anhydrase 9 (CA9), epithelial growth factor receptor (EGFR), dual specificity phosphatase 6 (DUSP6), v-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (ERBB3), monocyte to macrophage differentiation-associated (MMD), lymphocyte-specific protein tyrosine kinase (LCK) and signal transducer and activator of transcription 1 (STAT1) was assessed in SCC, AC, and in normal lung by quantitative reverse transcriptase - polymerase chain reaction (qRT-PCR). Metastasis-free survival was analyzed according to the median value of gene expression in the entire NSCLC cohort and separately in SCC and AC. RESULTS: Expression of CA9, CSF1, DUSP6, STAT1, and MMD differed between NSCLC and normal lung. EGFR was more abundant in SCC compared with AC, whereas the reverse was true for DUSP6 and ERBB3. A high expression of CSF1 correlated with shorter metastasis-free survival in the entire NSCLC group (P = .016) and in SCC (P = .049) and AC (P = .034) cohorts. CONCLUSIONS: Several genes considered prognostic in NSCLC showed significantly different expression in SCC and AC, and thus should be analyzed separately in these 2 subtypes for their prognostic significance. CSF1 is similarly expressed in SCC and AC, and portends a poor outcome in the entire group of patients with NSCLC, and in SCC and AC when considered separately.

[678]

TÍTULO / TITLE: - Endostar combined with Cisplatin inhibits tumor growth and lymphatic metastasis of lewis lung carcinoma xenografts in mice.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):3079-83.

AUTORES / AUTHORS: - Dong XP; Xiao TH; Dong H; Jiang N; Zhao XG

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Second Hospital of Shandong University, Shandong University, Jinan, China E-mail : dxp3260@sina.com.

RESUMEN / SUMMARY: - Objective: To investigate the effects of endostar, a recombinant humanized endostatin, plus cisplatin on the growth, lymphangiogenesis and lymphatic metastasis of the Lewis lung carcinoma (LLC) in mice. Methods: A tumor model were established in C57BL/6 mice by intravenous transplantation of LLC cells. Then the mice were randomized to receive administration with NS, endostar, cisplatin, or endostar plus cisplatin. After the mice were sacrificed, tumor multiplicity, tumor size and lymph node metastasis were assessed. Then the expression of vascular endothelial growth factor-c (VEGF-C) and podoplanin were determined by immunohistochemical staining. Results: Endostar plus cisplatin significantly suppressed tumor growth, lymphatic metastasis and prolonged survival time of the mice without obvious toxicity. The inhibition of lymphatic metastasis was associated with decreased

microlymphatic vessel density (MLVD) and expression of VEGF-C.
Conclusions: Endostar combined with cisplatin was more effective to suppress tumor growth and lymphatic metastasis than either agent alone. Thus this may provide a rational alternative for lung carcinoma treatment.

[679]

TÍTULO / TITLE: - Involved-field radiotherapy versus elective nodal irradiation in combination with concurrent chemotherapy for locally advanced non-small cell lung cancer: a prospective randomized study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biomed Res Int. 2013;2013:371819. doi: 10.1155/2013/371819. Epub 2013 May 13.

●● Enlace al texto completo (gratis o de pago) [1155/2013/371819](#)

AUTORES / AUTHORS: - Chen M; Bao Y; Ma HL; Hu X; Wang J; Wang Y; Peng F; Zhou QC; Xie CH

INSTITUCIÓN / INSTITUTION: - Department of Radiation and Medical Oncology, Zhongnan Hospital, Hubei Cancer Clinical Study Center, Wuhan University, Wuhan 430071, China.

RESUMEN / SUMMARY: - This prospective randomized study is to evaluate the locoregional failure and its impact on survival by comparing involved field radiotherapy (IFRT) with elective nodal irradiation (ENI) in combination with concurrent chemotherapy for locally advanced non-small cell lung cancer. It appears that higher dose could be delivered in IFRT arm than that in ENI arm, and IFRT did not increase the risk of initially uninvolved or isolated nodal failures. Both a tendency of improved locoregional progression-free survival and a significant increased overall survival rate are in favor of IFRT arm in this study.

[680]

TÍTULO / TITLE: - Treatment with EGCG in NSCLC leads to decreasing interstitial fluid pressure and hypoxia to improve chemotherapy efficacy through rebalance of Ang-1 and Ang-2.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chin J Nat Med. 2013 May;11(3):245-53. doi: 10.1016/S1875-5364(13)60023-0.

●● Enlace al texto completo (gratis o de pago) [1016/S1875-5364\(13\)60023-0](#)

AUTORES / AUTHORS: - Deng PB; Hu CP; Xiong Z; Yang HP; Li YY

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Xiangya Hospital, Central South University, Changsha, China.

RESUMEN / SUMMARY: - AIM: Microvasculature and microenvironment play important roles in proliferation, invasion, metastasis and prognosis in non-small cell lung cancer (NSCLC), which might be altered by many anti-angiogenic

drugs. Epigallocatechin-3-gallate (EGCG), a natural anti-angiogenesis agent refined from green tea, was defined to have multiple effects on angiogenesis factors, such as endothelial growth factor (VEGF), platelet-derived growth factor (PDGF) and angiopoietins (ANGs). Hypothesizing that EGCG might regulate microvasculature and microenvironment in NSCLC, the effects of EGCG on microvessel density (MVD), expression of Ang-1 and Ang-2, interstitial fluid pressure (IFP), tumor hypoxia, and chemotherapy sensitivity were examined. METHODS AND RESULTS: EGCG treatment of A549 cells in mice bearing xenografts in vivo led to a significant decrease of MVD detected by CD31, and of Ang-2 expression detected by quantum dots double-label immunofluorescence assessment, while Ang-1 decreased with no significance. Decreased IFP was measured by the Wink-in-needle method, while hypoxia was assessed by polarographic electrode and pimonidazole (PIMO) immunohistochemistry. Assuming that these changes would increase response to chemotherapy, tumor growth studies were performed in nude mice with xenografts, which were then treated with EGCG and the chemotherapeutic agent cisplatin. EGCG therapy combined with cisplatin led to synergistic inhibition of tumor growth, compared with administration of each treatment separately ($P < 0.001$). According to linear regression analysis, IFP was positively correlated with PIMO staining ($R(2) = 0.618$, $P = 0.002$), Ang-2 was correlated with MVD ($R(2) = 0.423$, $P = 0.022$), IFP ($R(2) = 0.663$, $P = 0.01$) and PIMO staining ($R(2) = 0.694$, $P = 0.01$). CONCLUSION: IFP and delivery of oxygen might be improved by rebalance of Ang-1/Ang-2 under the treatment of EGCG in NSCLC, which also acts as a sensitizer of chemotherapy. These studies established a new mechanism for using EGCG as an adjuvant chemotherapy agent through modifying microvasculature and microenvironment.

[681]

TÍTULO / TITLE: - Utility of VEGF and sVEGFR-1 in bronchoalveolar lavage fluid for differential diagnosis of primary lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(4):2443-6.

AUTORES / AUTHORS: - Cao C; Sun SF; Lv D; Chen ZB; Ding QL; Deng ZC

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, the Affiliated Hospital of School of Medicine, Ningbo University, Ningbo, China.

RESUMEN / SUMMARY: - Published data have shown that the levels of vascular endothelial growth factor (VEGF) and soluble VEGF receptor-1 (sVEGFR-1) in plasma and pleural effusion might be usefulness for lung cancer diagnosis. Here, we performed a prospective study to investigate the utility of VEGF and sVEGFR-1 in bronchoalveolar lavage fluid (BALF) for differential diagnosis of primary lung cancer. A total of 56 patients with solitary pulmonary mass by chest radiograph or CT screening were enrolled in this study. BALF and plasma samples were obtained from all patients and analyzed for VEGF and

sVEGFR-1 using a commercially available sandwich ELISA kit. The results showed that the levels of VEGF in BALF were significantly higher in patients with a malignant pulmonary mass compared with patients with a benign mass ($P < 0.001$). However, no significant difference of sVEGFR-1 in BALF was found between malignant and non-malignant groups ($P = 0.43$). With a cut-off value of 214 pg/ml, VEGF showed a sensitivity and specificity of 81.8% and 84.2%, respectively, in predicting the malignant nature of a solitary pulmonary mass. Our study suggests that VEGF is significantly increased in BALF among patients with lung cancer than in benign diseases. Measurement of VEGF in BALF might be helpful for differential diagnosis of primary lung cancer.

[682]

TÍTULO / TITLE: - Dose-effect relationship of CpG oligodeoxyribonucleotide 1826 in murine Lewis lung cancer treated with irradiation.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Onco Targets Ther. 2013 May 20;6:549-54. doi: 10.2147/OTT.S42485. Print 2013.

●● Enlace al texto completo (gratis o de pago) [2147/OTT.S42485](#)

AUTORES / AUTHORS: - Zhuang X; Qiao T; Yuan S; Chen W; Zha L; Yan L

INSTITUCIÓN / INSTITUTION: - Department of Oncology, Jinshan Hospital, Medical Center of Fudan University, Shanghai, People's Republic of China.

RESUMEN / SUMMARY: - BACKGROUND: Cytosine-phosphate-guanine (CpG) oligodeoxyribonucleotides (ODNs), which induce signaling via Toll-like receptor 9, have recently been suggested to enhance sensitivity to traditional therapies, including chemotherapy, in certain cancer cell lines. This study aimed to define the dose-effect relationship for CpG ODN 1826 in increasing radiosensitivity and its impact on immune function in a mouse model of Lewis lung cancer. METHODS: The tumor-bearing mouse model was induced by injecting Lewis lung cancer cells into the right anterior leg subcutaneously. Sixty-four C57BL/6 J mice were evenly randomized into eight groups, comprising: a control group; an irradiation group; a CpG ODN 0.15 group; a CpG ODN 0.3 group; a CpG ODN 0.45 group; a CpG 0.15 + irradiation group; a CpG 0.3 + irradiation group; and a CpG 0.45 + irradiation group. Tumor growth, serum tumor necrosis factor-alpha and interleukin-12 concentrations, spleen and thymus exponents, and effect of CpG on the secondary immune response were measured, and apoptosis of tumor cells was investigated using TdT-mediated dUTP nick end labeling (TUNEL) after treatment. RESULTS: Tumor volumes in the treated groups were smaller than in the control group, with those of the CpG 0.45 + irradiation group being the smallest. TUNEL showed that the apoptosis rate in all the active treatment groups was higher than in the control group. CpG ODN apoptosis rate, serum tumor necrosis factor-alpha and interleukin-12 levels, and the spleen and thymus exponent showed greater improvement in the groups receiving combination therapy of CpG ODN and irradiation than the control

group or the group receiving irradiation alone. With the increasing concentration of CpG ODN 1826, its effect became more and more significant, meanwhile, inoculation of Lewis lung cancer cells failed in those CpG ODN-cured mice. CONCLUSION: CpG ODNs dramatically increased the radiosensitivity of Lewis lung cancer and enhanced immune function in mice in a dose-related manner.

[683]

TÍTULO / TITLE: - Clinical significance of B7-H4 expression in matched non-small cell lung cancer brain metastases and primary tumors.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Onco Targets Ther. 2013 Jul 10;6:869-75. doi: 10.2147/OTT.S48085. Print 2013.

●● [Enlace al texto completo \(gratis o de pago\) 2147/OTT.S48085](#)

AUTORES / AUTHORS: - Li ZY; Zhang XH; Chen Y; Guo JG; Sai K; Yang QY; Chen ZP; Mou YG

INSTITUCIÓN / INSTITUTION: - Beijing Neurosurgical Institute, Capital Medical University, Beijing, People's Republic of China.

RESUMEN / SUMMARY: - BACKGROUND: B7-H4, a member of the inhibitory B7 family, is shown to have a profound inhibitory effect on the proliferation, activation, cytokine secretion, and development of cytotoxicity of T cells and may be involved in immune evasion in cancer patients. Although B7-H4 expression has been detected in non-small cell lung cancer (NSCLC), there are no published reports on the expression of B7-H4 in brain metastases from NSCLC. METHODS: We examined the expression of B7-H4 by immunohistochemistry in 49 cases of brain metastatic NSCLC, 18 cases of matched primary NSCLC, and 20 cases of NSCLC patients who had neither brain metastases nor other distant metastases. RESULTS: B7-H4 was highly expressed in 20 (40.8%) out of 49 brain metastases and two (11.1%) out of 18 matched primary tumors. The expression of B7-H4 in brain metastases appeared to be significantly higher than their matched primary tumors ($P = 0.016$). We also found that patients with high B7-H4 expression in their primary NSCLC have a higher risk of developing brain metastases ($P = 0.022$). Univariate analyses showed that median overall survival was significantly shorter in patients with high B7-H4 expression in brain metastases ($P = 0.002$). Multivariate analyses showed that B7-H4 was a significant independent prognostic indicator ($P = 0.003$). CONCLUSION: NSCLC patients with high B7-H4 expression may benefit from aggressive treatment and close surveillance. Furthermore, our study suggests that B7-H4 may play an important role in the metastatic process of NSCLC and is promising to be a new immune checkpoint molecule for future antitumoral immunotherapy.

[684]

TÍTULO / TITLE: - Survival, classifications, and desmosomal plaque genes in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Med Sci. 2013 Jul 10;10(9):1166-73. doi: 10.7150/ijms.5747. Print 2013.

●● Enlace al texto completo (gratis o de pago) 7150/ijms.5747

AUTORES / AUTHORS: - Boyero L; Sanchez-Palencia A; Miranda-Leon MT; Hernandez-Escobar F; Gomez-Capilla JA; Farez-Vidal ME

INSTITUCIÓN / INSTITUTION: - 1. Department of Biochemistry and Molecular Biology, University of Granada School of Medicine, Granada, España.

RESUMEN / SUMMARY: - Novel biomarkers are required to improve prognostic predictions obtained with lung cancer staging systems. This study of 62 surgically-treated Non-Small Cell Lung Cancer (NSCLC) patients had two objectives: i) to compare the predictive value of T-stage classifications between the 6(th) and 7(th) editions of the Tumor, Node, and Metastasis staging system (TNM); and ii) to examine the association of Pkp1 and/or Krt15 gene expression with survival and outcomes. Multivariate and Kaplan-Meier survival analyses were performed, examining the relationship of survival with T-stage, recurrence, and TNM-stage (by each TNM edition) and with the single/combined expression of Pkp1 and/or Krt15 genes. Five-year survival rates only significantly differed as a function of T-stage in patients without recurrence when estimated using the 6(th) edition of the TNM classification and only in patients in pathologic TNM-stage IA using the 7(th). Overall survival for patients with elevated expression of both genes was 13.5 months in those with adenocarcinoma and 34.6 months in those with squamous cell carcinoma. Overall survival was 30.4 months in patients with Pkp1 gene upregulation and 30.9 months in those with Krt15 gene upregulation. In conclusion, survival estimations as a function of T-staging differed between the 6(th) and 7(th) editions of TNM. Overall survival differed according to the expression of Pkp1 and/or Krt15 genes, although this relationship did not reach statistical significance.

[685]

TÍTULO / TITLE: - The evaluation of immunohistochemical markers and thymic cortical microenvironmental cells in distinguishing thymic carcinoma from type b3 thymoma or lung squamous cell carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Clin Exp Hematop. 2013;53(1):9-19.

AUTORES / AUTHORS: - Hayashi A; Fumon T; Miki Y; Sato H; Yoshino T; Takahashi K

INSTITUCIÓN / INSTITUTION: - Department of Medical Technology, Graduate School of Health Science, Okayama University.

RESUMEN / SUMMARY: - Thymic carcinoma (TC) is often very difficult to distinguish from type B3 thymoma and lung squamous cell carcinoma (L-SCC) involving the anterior mediastinum. The present study evaluated the usefulness

of immunohistochemical markers including c-Kit, CD5, glucose transporter-1 (GLUT-1), claudin-1 (CLDN-1), thymoproteasome beta5t, p53 and Ki-67 (MIB-1) and thymic cortical environmental marker cells, cortical thymocytes (c-Thy) and thymic cortical dendritic macrophages (TCDMs) in distinguishing thymic carcinoma (TC) from type B3 thymoma or lung squamous cell carcinoma (L-SCC) using 17 cases of type B3 thymoma, 18 cases of TC and 12 cases of L-SCC. The results indicated that c-Kit and CD5 are very useful markers for TC, while GLUT-1, CLDN-1, p53 and Ki-67 are not. Thymic cortical microenvironmental marker cells, especially TCDMs, and thymic cortical epithelial cell-marker beta5t are also useful for distinguishing TC from type B3 thymoma. Although none of these markers are adequate for making a distinction when used alone, the plural use of c-Kit, CD5, beta5t thymic cortical environmental marker cells, c-Thys and TCDMs may therefore lead to a correct distinction between TC and type B3 thymoma or L-SCC. [J Clin Exp Hematop 53(1) : 9-19, 2013].

[686]

TÍTULO / TITLE: - High expression of a disintegrin and metalloproteinase-9 predicts a shortened survival time in completely resected stage I non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Lett. 2013 May;5(5):1461-1466. Epub 2013 Feb 22.

●● Enlace al texto completo (gratis o de pago) [3892/ol.2013.1209](#)

AUTORES / AUTHORS: - Zhang J; Qi J; Chen N; Fu W; Zhou B; He A

INSTITUCIÓN / INSTITUTION: - Department of Molecular Targeted Therapeutics, China Medical University Lung Cancer Center, The First Hospital of China Medical University, Shenyang, P.R. China ; Department of Thoracic Surgery 1, China Medical University Lung Cancer Center, The First Hospital of China Medical University, Shenyang, P.R. China.

RESUMEN / SUMMARY: - The aim of this study was to investigate the abnormal expression of a disintegrin and metalloproteinase-9 (ADAM9) in human resected non-small cell lung cancer (NSCLC) tissue, in order to evaluate the significance of ADAM9 expression in surgically resected NSCLC. Sixty-four cases of completely resected stage I NSCLC with mediastinal N2 lymph node dissection were immunohistochemically analyzed for ADAM9 protein expression. Survival, univariate and multivariate analyses were conducted to assess the significance of ADAM9 expression and its correlation with other clinicopathological characteristics. ADAM9 was observed to be significantly more highly expressed in NSCLC tissue compared with normal control lung tissue (P=0.001). The 5-year survival rate for patients with NSCLC tissues highly expressing ADAM9 was significantly lower when compared with NSCLC tissues of patients exhibiting low expression of ADAM9 (56.9 vs. 88.9%, P=0.012). Multivariate analysis identified that high expression of ADAM9 is an

independent factor of shortened survival time in resected stage I NSCLC (HR, 3.385; 95% CI, 1.224-9.360; P=0.019). These results clearly demonstrate that ADAM9 is highly expressed in NSCLC and highly expressed ADAM9 correlates with shortened survival time, suggesting that ADAM9 is a novel biomarker for predicting prognosis in resected stage I NSCLC. ADAM9 may also become a useful predictive biomarker for the selection of adjuvant chemotherapy treatment of NSCLC.

[687]

TÍTULO / TITLE: - Intratumoral chemotherapy for lung cancer: re-challenge current targeted therapies.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Drug Des Devel Ther. 2013 Jul 18;7:571-83. doi: 10.2147/DDDT.S46393. Print 2013.

●● Enlace al texto completo (gratis o de pago) [2147/DDDT.S46393](#)

AUTORES / AUTHORS: - Hohenforst-Schmidt W; Zarogoulidis P; Darwiche K; Vogl T; Goldberg EP; Huang H; Simoff M; Li Q; Browning R; Turner FJ; Le Pivert P; Spyrtos D; Zarogoulidis K; Celikoglu SI; Celikoglu F; Brachmann J

INSTITUCIÓN / INSTITUTION: - II Medical Clinic, Coburg Hospital, University of Wuerzburg, Coburg, Germany.

RESUMEN / SUMMARY: - Strategies to enhance the already established doublet chemotherapy regimen for lung cancer have been investigated for more than 20 years. Initially, the concept was to administer chemotherapy drugs locally to the tumor site for efficient diffusion through passive transport within the tumor. Recent advances have enhanced the diffusion of pharmaceuticals through active transport by using pharmaceuticals designed to target the genome of tumors. In the present study, five patients with non-small cell lung cancer epidermal growth factor receptor (EGFR) negative stage IIIa-IV International Union Against Cancer 7 (UICC-7), and with Eastern Cooperative Oncology Group (ECOG) 2 scores were administered platinum-based doublet chemotherapy using combined intratumoral-regional and intravenous route of administration. Cisplatin analogues were injected at 0.5%-1% concentration within the tumor lesion and proven malignant lymph nodes according to pretreatment histological/cytological results and the concentration of systemic infusion was decreased to 70% of a standard protocol. This combined intravenous plus intratumoral-regional chemotherapy is used as a first line therapy on this short series of patients. To the best of our knowledge this is the first report of direct treatment of involved lymph nodes with cisplatin by endobronchial ultrasound drug delivery with a needle without any adverse effects. The initial overall survival and local response are suggestive of a better efficacy compared to established doublet cisplatin-based systemic chemotherapy in (higher) standard concentrations alone according to the UICC 7 database expected survival. An extensive search of the literature was performed to gather information of previously published literature of intratumoral

chemo-drug administration and formulation for this treatment modality. Our study shows a favorable local response, more than a 50% reduction, for a massive tumor mass after administration of five sessions of intratumoral chemotherapy plus two cycles of low-dose intravenous chemotherapy according to our protocol. These encouraging results (even in very sick ECOG 2 patients with central obstructive non-small cell lung cancer having a worse prognosis and quality of life than a non-small cell lung cancer in ECOG 0 of the same tumor node metastasis [TNM]-stage without central obstruction) for a chemotherapy-only protocol that differs from conventional cisplatin-based doublet chemotherapy by the route, target site, and dose paves the way for broader applications of this technique. Finally, future perspectives of this treatment and pharmaceutical design for intratumoral administration are presented.

[688]

TÍTULO / TITLE: - Prophylactic cranial irradiation in small cell lung cancer: a single institution experience.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ir J Med Sci. 2013 Jun 13.

●● Enlace al texto completo (gratis o de pago) [1007/s11845-013-0977-](http://1007/s11845-013-0977-z)

[z](#)

AUTORES / AUTHORS: - Naidoo J; Kehoe M; Sasiadek W; Hacking D; Calvert P

INSTITUCIÓN / INSTITUTION: - Beaumont Hospital, Beaumont Rd, P.O. Box 1297, Dublin 2, Ireland, jarushka_14@yahoo.com.

RESUMEN / SUMMARY: - BACKGROUND: Prophylactic cranial irradiation (PCI) is used to prevent the development of brain metastases in small cell lung carcinoma. PCI confers an overall survival (OS) benefit in both limited and extensive stage disease. AIMS: We analyze the incidence of symptomatic brain metastases, progression-free survival (PFS) and OS in a cohort of patients who received PCI, in a 5-year period. METHODS: A retrospective review of all patients who had received PCI between 2006 and 2011 at the Whitfield Clinic was completed. Patient- and disease-related characteristics, the number of patients who developed brain metastases, PFS and OS data were collected. RESULTS: 24 patients were identified. 14 (58.3 %) patients were male, 10 (41.7 %) were female, with a mean age of 62.5 years (range 31-78). All patients were smokers. 12 (50 %) patients had limited stage small cell lung cancer (SCLC), 12 (50 %) had extensive stage disease. 2 (8.2 %) patients developed brain metastases post PCI (p = 0.478.) The median PFS for limited stage SCLC was 13 months (range 3-20) and 10 months (range 5-18) for extensive stage SCLC. Median OS was 15 months (range 4-29) in limited stage SCLC, and 11 months (range 5-29) in extensive stage SCLC. CONCLUSIONS: Our study demonstrated a low incidence of symptomatic brain metastases and favourable median PFS and OS in the patients that received PCI, when compared to published phase III data.

[689]

TÍTULO / TITLE: - Plumbagin from *Plumbago Zeylanica* L induces apoptosis in human non-small cell lung cancer cell lines through NF- κ B inactivation.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(4):2325-31.

AUTORES / AUTHORS: - Xu TP; Shen H; Liu LX; Shu YQ

INSTITUCIÓN / INSTITUTION: - Department of Oncology, the First Affiliated Hospital of Nanjing Medical University, Nanjing, China.

RESUMEN / SUMMARY: - **OBJECTIVE:** To detect effects of plumbagin on proliferation and apoptosis in non-small cell lung cancer cell lines, and investigate the underlying mechanisms. **MATERIALS AND METHODS:** Human non-small cell lung cancer cell lines A549, H292 and H460 were treated with various concentrations of plumbagin. Cell proliferation rates was determined using both cell counting kit-8 (CCK-8) and clonogenic assays. Apoptosis was detected by annexin V/propidium iodide double-labeled flow cytometry and TUNEL assay. The levels of reactive oxygen species (ROS) were detected by flow cytometry. Activity of NF- κ B was examined by electrophoretic mobility shift assay (EMSA) and luciferase reporter assay. Western blotting was used to assess the expression of both NF- κ B regulated apoptotic-related gene and activation of p65 and I κ B. **RESULTS:** Plumbagin dose-dependently inhibited proliferation of the lung cancer cells. The IC₅₀ values of plumbagin in A549, H292, and H460 cells were 10.3 μ mol/L, 7.3 μ mol/L, and 6.1 μ mol/L for 12 hours, respectively. The compound concentration-dependently induced apoptosis of the three cell lines. Treatment with plumbagin increased the intracellular level of ROS, and inhibited the activation of NF- κ B. In addition to inhibition of NF- κ B/p65 nuclear translocation, the compound also suppressed the degradation of I κ B. ROS scavenger NAC highly reversed the effect of plumbagin on apoptosis and inactivation of NF- κ B in H460 cell line. Treatment with plumbagin also increased the activity of caspase-9 and caspase-3, downregulated the expression of Bcl-2, upregulated the expression of Bax, Bak, and CytC. **CONCLUSIONS:** Plumbagin inhibits cell growth and induces apoptosis in human lung cancer cells through an NF- κ B-regulated mitochondrial-mediated pathway, involving activation of ROS.

[690]

TÍTULO / TITLE: - Ascorbic Acid and a cytostatic inhibitor of glycolysis synergistically induce apoptosis in non-small cell lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 11;8(6):e67081. doi: 10.1371/journal.pone.0067081. Print 2013.

- Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0067081](https://doi.org/10.1371/journal.pone.0067081)

AUTORES / AUTHORS: - Vuyyuri SB; Rinkinen J; Worden E; Shim H; Lee S; Davis KR

INSTITUCIÓN / INSTITUTION: - Owensboro Cancer Research Program, Owensboro, Kentucky, United States of America.

RESUMEN / SUMMARY: - Ascorbic acid (AA) exhibits significant anticancer activity at pharmacologic doses achievable by parenteral administration that have minimal effects on normal cells. Thus, AA has potential uses as a chemotherapeutic agent alone or in combination with other therapeutics that specifically target cancer-cell metabolism. We compared the effects of AA and combinations of AA with the glycolysis inhibitor 3-(3-pyridinyl)-1-(4-pyridinyl)-2-propen-1-one (3-PO) on the viability of three non-small cell lung cancer (NSCLC) cell lines to the effects on an immortalized lung epithelial cell line. AA concentrations of 0.5 to 5 mM caused a complete loss of viability in all NSCLC lines compared to a <10% loss of viability in the lung epithelial cell line. Combinations of AA and 3-PO synergistically enhanced cell death in all NSCLC cell lines at concentrations well below the IC50 concentrations for each compound alone. A synergistic interaction was not observed in combination treatments of lung epithelial cells and combination treatments that caused a complete loss of viability in NSCLC cells had modest effects on normal lung cell viability and reactive oxygen species (ROS) levels. Combination treatments induced dramatically higher ROS levels compared to treatment with AA and 3-PO alone in NSCLC cells and combination-induced cell death was inhibited by addition of catalase to the medium. Analyses of DNA fragmentation, poly (ADP-ribose) polymerase cleavage, annexin V-binding, and caspase activity demonstrated that AA-induced cell death is caused via the activation of apoptosis and that the combination treatments caused a synergistic induction of apoptosis. These results demonstrate the effectiveness of AA against NSCLC cells and that combinations of AA with 3-PO synergistically induce apoptosis via a ROS-dependent mechanism. These results support further evaluation of pharmacologic concentrations of AA as an adjuvant treatment for NSCLC and that combination of AA with glycolysis inhibitors may be a promising therapy for the treatment of NSCLC.

[691]

TÍTULO / TITLE: - MicroRNA-145 regulates oncolytic herpes simplex virus-1 for selective killing of human non-small cell lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Virol J. 2013 Jul 22;10:241. doi: 10.1186/1743-422X-10-241.

- Enlace al texto completo (gratis o de pago) [1186/1743-422X-10-241](https://doi.org/10.1186/1743-422X-10-241)

AUTORES / AUTHORS: - Li JM; Kao KC; Li LF; Yang TM; Wu CP; Horng YM; Jia WW; Yang CT

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Medicine, Chang Gung Memorial Hospital, 5 Fu-Hsing Street, Kweishan, 333, Taoyuan, Taiwan.
yang1946@cgmh.org.tw.

RESUMEN / SUMMARY: - BACKGROUND: Non-small cell lung cancer (NSCLC) is the leading cause of cancer-related mortality worldwide, and novel treatment modalities to improve the prognosis of patients with advanced disease are highly desirable. Oncolytic virotherapy is a promising approach for the treatment of advanced NSCLC. MicroRNAs (miRNAs) may be a factor in the regulation of tumor-specific viral replication. The purpose of this study was to investigate whether miRNA-145 regulated oncolytic herpes simplex virus-1 (HSV-1) can selectively kill NSCLC cells with reduced collateral damage to normal cells. METHODS: We incorporated 4 copies of miRNA-145 target sequences into the 3'-untranslated region of an HSV-1 essential viral gene, ICP27, to create AP27i145 amplicon viruses and tested their target specificity and toxicity on normal cells and lung cancer cells in vitro. RESULTS: miRNA-145 expression in normal cells was higher than that in NSCLC cells. AP27i145 replication was inversely correlated with the expression of miRNA-145 in infected cells. This oncolytic HSV-1 selectively reduced cell proliferation and prevented the colony formation of NSCLC cells. The combination of radiotherapy and AP27i145 infection was significantly more potent in killing cancer cells than each therapy alone. CONCLUSIONS: miRNA-145-regulated oncolytic HSV-1 is a promising agent for the treatment of NSCLC.

[692]

TÍTULO / TITLE: - Predictive Value of Primary Fluorine-18 Fluorodeoxyglucose Standard Uptake Value for a Better Choice of Systematic Nodal Dissection or Sampling in Clinical Stage IA Non-Small-Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 5. pii: S1525-7304(13)00082-X. doi: 10.1016/j.clcc.2013.02.002.

●● Enlace al texto completo (gratis o de pago) 1016/j.clcc.2013.02.002

AUTORES / AUTHORS: - Li X; Zhang H; Xing L; Xu X; Xie P; Ma H; Zhang L; Chen M; Sun X; Xu W; Chen L; Yu J

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology and Key Laboratory of Radiation Oncology of Shandong Province, Department of Radiation Oncology of Shandong Cancer Hospital and Institute, Jinan, Shandong, China.

RESUMEN / SUMMARY: - PURPOSE: To determine whether the standard uptake value (SUV) of the primary lesion can predict mediastinal lymph node metastasis in clinical stage IA non-small-cell lung cancer (NSCLC). MATERIALS AND METHODS: At 5 centers, patients with clinical stage IA NSCLC from February 2004 to August 2010 were analyzed retrospectively.

Data from Shandong Cancer Hospital and from the Cancer Hospital Affiliated to Harbin Medical University were used as a testing set, and data from the other 3 institutions were used as the validation set. Final diagnosis was established based on the histopathologic examination. RESULTS: Data from 144 patients were collected for the study. The primary results in our study showed that maximal SUV (SUVmax) of primary tumor might be a predictor of lymph node metastasis ($\chi^2 = 10.424$; $P = .001$) and the best cutoff value was 7.25 ($P = .029$). For the testing set, lymph node metastasis rates in low-grade group (SUVmax < 7.25) and high-grade group (SUVmax > 7.25) were 5% (2/43) and 36% (9/25) ($P = .001$). For the total data set, lymph node metastasis rate was 7% (6/93) in low-grade group (SUVmax < 7.25) and 26% (13/51) in high-grade group (SUVmax > 7.25) ($\chi^2 = 10.424$; $P = .001$). A multivariate analysis revealed that no factors were applied to predict the probability of metastasis. But the analysis showed a weak correlation between SUVmax and nodal status ($r = 0.21$; $P = .011$) with bivariate correlation. CONCLUSION: Analysis of our data suggested that fluorine-18 fluorodeoxyglucose SUVmax of the primary tumor might be a predictor of lymph node involvement in stage IA NSCLC. The rate of mediastinal lymph node metastasis of patients with a lower fluorine-18 fluorodeoxyglucose positron emission tomography-computed tomography SUVmax might be relatively low, which provides more evidence for clinical procedures of clinical stage IA NSCLC.

[693]

TÍTULO / TITLE: - Influence of Medical Comorbidities on the Presentation and Outcomes of Stage I-III Non-Small-Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 22. pii: S1525-7304(13)00137-X. doi: 10.1016/j.clc.2013.06.009.

●● Enlace al texto completo (gratis o de pago) 1016/j.clc.2013.06.009

AUTORES / AUTHORS: - Ahn DH; Mehta N; Yorio JT; Xie Y; Yan J; Gerber DE

INSTITUCIÓN / INSTITUTION: - Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, TX.

RESUMEN / SUMMARY: - BACKGROUND: Non-small-cell lung cancer presentation, treatment, and outcomes vary widely according to socioeconomic factors and other patient characteristics. To determine whether medical comorbidities account for these observations, we incorporated a validated medical comorbidity index into an analysis of patients diagnosed with stage I to III NSCLC. PATIENTS AND METHODS: We performed a retrospective analysis of consecutive patients diagnosed with stage I to III NSCLC. Demographic, tumor, and comorbidity data were obtained from hospital tumor registries and individual patient records. The association between variables was assessed using multivariate logistic regression and survival analysis. RESULTS: A total of 454 patients met criteria for analysis. The median age was 65 years, and 51% were men. Individuals with a higher Charlson Comorbidity Index (CCI) were

significantly more likely to present with early stage (stage I-II) NSCLC than were patients with lower CCI (odds ratio, 1.72; 95% confidence interval, 1.14-2.63; $P = .01$), although this association lost statistical significance ($P = .21$) in a multivariate model. In multivariate logistic regression, overall survival remained associated with all variables: age, sex, race, insurance type, stage, histology, and CCI ($P = .0007$). The CCI was associated with survival for patients with early stage ($P = .02$) and locally advanced ($P = .02$) disease. CONCLUSION: In this cohort of patients with stage I to III NSCLC, increasing comorbidity burden had a nonsignificant association with diagnosis at earlier disease stage. Although comorbidity burden was significantly associated with outcome for early stage and locally advanced disease, it did not account for survival differences based on multiple other patient and disease characteristics.

[694]

TÍTULO / TITLE: - Relationship between primary lesion metabolic parameters and clinical stage in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Rev Esp Med Nucl. Acceso gratuito al texto completo a partir de los 2 años de la fecha de publicación.

- Enlace a la Editora de la Revista <http://db.doyma.es/>

- Cita: Revista Española de Medicina Nuclear: <> Imagen Mol. 2013 Jun 5. pii: S2253-654X(13)00047-4. doi: 10.1016/j.remn.2013.03.008.

- Enlace al texto completo (gratuito o de pago)

[1016/j.remn.2013.03.008](#)

AUTORES / AUTHORS: - Sahiner I; Atasever T; Akdemir UO; Ozturk C; Memis L

INSTITUCIÓN / INSTITUTION: - Department of Nuclear Medicine, Ankara Oncology Research and Training Hospital, Ankara, Turkey. Electronic address:

ilginsahiner@yahoo.com.

RESUMEN / SUMMARY: - OBJECTIVES: The relation of PET-derived parameters as maximum standardized uptake value (SUVmax), total lesion glycolysis (TLG), metabolic tumor volume (MTV) with clinical stage in lung cancer and correlation of SUVmax of primary tumor and that of metastatic lesion was studied in lung cancer patients. MATERIALS AND METHODS: Patients with lung cancer who were referred for FDG PET/CT were included in the study. RESULTS: PET/CT scans and pathology reports of 168 patients were assessed. A total of 146 (86.9%) of these patients had a diagnosis of non-small cell lung cancer (NSCLC) and 22 (13.1%) had small cell lung cancer (SCLC). Metabolic parameters such as SUVmax, TLG and MTV showed significant differences in all the stages in NSCLC patients ($p < 0.001$). However, after tumors sizes < 25 mm were excluded, no significant differences in SUVmax between stages were observed. No significant differences were found between these metabolic parameters and limited or extended disease SCLC. Tumor diameter correlated with primary tumor SUVmax and significant correlations between primary lesion SUVmax and metastatic lesion SUVmax were found.

CONCLUSIONS: Although differences were found regarding indices between stages of NSCLC cases, SUVmax differences between stages seem to be caused by underestimation of SUVmax in small lesions. Other glucose metabolism indexes such as MTV and TLG show promising results in terms of prognostic stratification. Future studies are needed for better understanding of their contribution to clinical cases.

[695]

TÍTULO / TITLE: - miR-150 promotes the proliferation of lung cancer cells by targeting P53.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - FEBS Lett. 2013 Aug 2;587(15):2346-51. doi: 10.1016/j.febslet.2013.05.059. Epub 2013 Jun 6.

●● Enlace al texto completo (gratis o de pago)

[1016/j.febslet.2013.05.059](#)

AUTORES / AUTHORS: - Zhang N; Wei X; Xu L

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan 430030, China. Electronic address: zhangnidoc@vip.163.com.

RESUMEN / SUMMARY: - Lung cancer is one of the most common causes for cancer-related death. Previous studies suggested that uncontrolled cell proliferation induced by activation of pro-cancer genes or inhibition of cancer suppressor genes plays an important role in the pathogenesis of lung cancer. Here, we demonstrate that miR-150 is aberrantly upregulated in lung cancer tissue and negatively correlates with the expression of the proapoptotic gene p53 but not EGR2. We show that miR-150 specifically targets the 3'-UTR of p53 and regulates its expression. Inhibition of miR-150 effectively delays cell proliferation and promotes apoptosis, accompanied by increased p53 protein expression. Our data reveals the mechanisms underlying miR-150 regulated lung cancer pathogenesis, which might be beneficial for lung cancer therapy. \$!~1046.95\$!" TATATAT - FEBS Lett

[696]

TÍTULO / TITLE: - Arginine-conjugated albumin microspheres inhibits proliferation and migration in lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Cancer Res. 2013 Jun 20;3(3):266-77. Print 2013.

AUTORES / AUTHORS: - Lee HY; Mohammed KA; Goldberg EP; Nasreen N

INSTITUCIÓN / INSTITUTION: - Division of Pulmonary, Critical Care & Sleep Medicine, Department of Medicine, University of Florida Gainesville, FL 32601, USA ; Biomaterials Center, Department of Materials Sciences and Engineering, University of Florida P. O. Box 116400, Gainesville, FL 32611-6400, USA.

RESUMEN / SUMMARY: - Arginine is one of the essential amino acid involved in numerous biosynthetic pathways that significantly influence tumor growth. It has

been demonstrated that arginine is effective to inhibit proliferation of cancer cells when an appropriate dose is applied. Generally, induction of cell death requires high concentration of arginine while low concentration of arginine facilitates cell proliferation. In addition to the apoptosis induced by metabolism of arginine, it has also been reported that in an ideal solution environment, arginine may assemble into arginine clusters to kill cancer cells. Therefore, to make the arginine an effective anticancer agent, arginine/albumin microspheres were designed and synthesized to provide a localized high concentration of arginine on tumor sites. In addition, the arginine/albumin mesospheres (AAMS) are also expected to provide an arginine-rich surface on microspheres, which is similar to the arginine cluster, to effectively inhibit tumor growth. In this study, the AAMS were synthesized through a water/organic solvent emulsion system and the surface properties were characterized. The in vitro effects of AAMS on A549, CRL-2081, MAK9 lung cancer cells (LCC) proliferation, migration, and tumor growth were determined. The expression of oncogenic protein EphA2 and transcription factor slug was also determined. AAMS significantly inhibited the cell proliferation, cell migration and tumor growth in all the three LCC, while same concentration of free arginine promoted the LCC tumor growth and migration. Our studies indicate that the synthesized AAMS has a more effective inhibiting effect on proliferation, migration and tumor growth of LCC than freely released arginine. The expression of EphA2 receptor mRNA was significantly decreased when compared to control cells. In addition the mRNA expression of transcription factor slug was also inhibited by AAMS suggesting that AAMS affects the expression of EphA2 and slug and may regulate LCC proliferation and migration. These data suggests that the AAMS can be an ideal delivery vehicle for therapeutic interventions against LCCs.

[697]

TÍTULO / TITLE: - PRKACB is downregulated in non-small cell lung cancer and exogenous PRKACB inhibits proliferation and invasion of LTP-A2 cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Lett. 2013 Jun;5(6):1803-1808. Epub 2013 Apr 8.

●● Enlace al texto completo (gratis o de pago) [3892/ol.2013.1294](#)

AUTORES / AUTHORS: - Chen Y; Gao Y; Tian Y; Tian DL

INSTITUCIÓN / INSTITUTION: - Departments of Thoracic Surgery, The Fourth Affiliated Hospital of China Medical University, Shenyang, Liaoning 110032, P.R. China.

RESUMEN / SUMMARY: - Protein kinase cAMP-dependent catalytic beta (PRKACB) is a member of the Ser/Thr protein kinase family and a key effector of the cAMP/PKA-induced signal transduction involved in numerous cellular process, including cell proliferation, apoptosis, gene transcription, metabolism and differentiation. In the present study, the expression pattern of PRKACB in non-small cell lung cancer (NSCLC) and the effect of PRKACB upregulation on cell proliferation, apoptosis and invasion were investigated. PRKACB mRNA

and protein expression was analyzed in the NSCLC tissue and corresponding normal tissues of 30 cases, using quantitative RT-PCR and western blot analysis. A plasmid containing full-length PRKACB was transfected into LTP-A2 cells to further investigate the effects of PRKACB overexpression on proliferation, apoptosis and invasion of the transfected cells, which were examined using 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT), colony formation, flow cytometry and Transwell assays. The results revealed that the NSCLC tissues exhibited much lower levels of PRKACB mRNA and protein compared with their corresponding normal tissues. The upregulation of PRKACB decreased the numbers of proliferative, colony and invasive cells, while the apoptotic rates of transfected cells were increased. These data indicate that PRKACB is downregulated in NSCLC tissues and that upregulation of PRKACB may be an effective way to prevent the progression of NSCLC.

[698]

TÍTULO / TITLE: - Exploring targeted pulmonary delivery for treatment of lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Pharm Investig. 2013 Jan;3(1):8-14. doi: 10.4103/2230-973X.108959.

●● Enlace al texto completo (gratis o de pago) [4103/2230-973X.108959](#)

AUTORES / AUTHORS: - Goel A; Baboota S; Sahni JK; Ali J

INSTITUCIÓN / INSTITUTION: - Department of Pharmaceutics, Faculty of Pharmacy, Jamia Hamdard, Hamdard University, New Delhi, India.

RESUMEN / SUMMARY: - Lung cancer is the most malignant cancer today. The treatment of lung cancer continues to be a challenge for oncologists. The direct delivery of chemotherapeutic agents to the lungs could represent a novel therapeutic approach for patients with pulmonary metastases. The large alveolar surface area, the low thickness of the epithelial barrier, and an extensive vascularization make the pulmonary route an ideal route for administration of oncolytics. This paper reviews the research performed over the last and current decades on the delivery of various oncolytics for pulmonary delivery for the treatment of lung cancer. Inhaled drug delivery devices in cancer therapy are also discussed in the present manuscript.

[699]

TÍTULO / TITLE: - Molecularly targeted approaches herald a new era of non-small-cell lung cancer treatment.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Manag Res. 2013 Jun 7;5:91-101. doi: 10.2147/CMAR.S32973. Print 2013.

●● Enlace al texto completo (gratis o de pago) [2147/CMAR.S32973](#)

AUTORES / AUTHORS: - Kaneda H; Yoshida T; Okamoto I

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Kinki University, Osakasayama, Japan.

RESUMEN / SUMMARY: - The discovery of activating mutations in the epidermal growth-factor receptor (EGFR) gene in 2004 opened a new era of personalized treatment for non-small-cell lung cancer (NSCLC). EGFR mutations are associated with a high sensitivity to EGFR tyrosine kinase inhibitors, such as gefitinib and erlotinib. Treatment with these agents in EGFR-mutant NSCLC patients results in dramatically high response rates and prolonged progression-free survival compared with conventional standard chemotherapy. Subsequently, echinoderm microtubule-associated protein-like 4 (EML4)-anaplastic lymphoma kinase (ALK), a novel driver oncogene, has been found in 2007. Crizotinib, the first clinically available ALK tyrosine kinase inhibitor, appeared more effective compared with standard chemotherapy in NSCLC patients harboring EML4-ALK. The identification of EGFR mutations and ALK rearrangement in NSCLC has further accelerated the shift to personalized treatment based on the appropriate patient selection according to detailed molecular genetic characterization. This review summarizes these genetic biomarker-based approaches to NSCLC, which allow the instigation of individualized therapy to provide the desired clinical outcome.

[700]

TÍTULO / TITLE: - A Novel Assessment of Various Bio-Imaging Methods for Lung Tumor Detection and Treatment by using 4-D and 2-D CT Images.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Biomed Sci. 2013 Jun;9(2):54-60.

AUTORES / AUTHORS: - Judice A A; Geetha DK

INSTITUCIÓN / INSTITUTION: - Research scholar, Anna University, Chennai;

RESUMEN / SUMMARY: - Lung Cancer is known as one of the most difficult cancer to cure, and the number of deaths that it causes generally increasing. A detection of the Lung Cancer in its early stage can be helpful for Medical treatment to limit the danger, but it is a challenging problem due to Cancer cell structure. Interpretation of Medical image is often difficult and time consuming, even for the experienced Physicians. The aid of image analysis Based on machine learning can make this process easier. This paper describes fully Automatic Decision Support system for Lung Cancer diagnostic from CT Lung images. Most traditional medical diagnosis systems are founded on huge quantity of training data and takes long processing time. However, on the occasion that very little volume of data is available, the traditional diagnosis systems derive defects such as larger error, Time complexity. Focused on the solution to this problem, a Medical Diagnosis System based on Hidden Markov Model (HMM) is presented. In this paper we describe a pre-processing stage involving some Noise removal techniques help to solve this problem, we preprocess an images (by Mean Error Square Filtering and Histogram

analysis)obtained after scanning the Lung CT images. Secondly separate the lung areas from an image by a segmentation process (by Thresholding and region growing techniques). Finally we developed HMM for the classification of Cancer Nodule. Results are checked for 2D and 4D CT images. This automation process reduces the time complexity and increases the diagnosis confidence.

[701]

TÍTULO / TITLE: - Panduratin A, a Possible Inhibitor in Metastasized A549 Cells through Inhibition of NF-Kappa B Translocation and Chemoinvasion.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - *Molecules*. 2013 Jul 24;18(8):8764-78. doi: 10.3390/molecules18088764.

●● Enlace al texto completo (gratis o de pago)

[3390/molecules18088764](#)

AUTORES / AUTHORS: - Cheah SC; Lai SL; Lee ST; Hadi AH; Mustafa MR

INSTITUCIÓN / INSTITUTION: - Faculty of Medicine and Health Sciences, UCSI University, Kuala Lumpur 56000, Malaysia. cheahsc@ucsiuniversity.edu.my.

RESUMEN / SUMMARY: - In the present study, we investigated the effects of panduratin A (PA), isolated from *Boesenbergia rotunda*, on apoptosis and chemoinvasion in A549 human non-small cell lung cancer cells. Activation of the executioner procaspase-3 by PA was found to be dose-dependent. Caspase-3 activity was significantly elevated at the 5 microg/mL level of PA treatment and progressed to a maximal level. However, no significant elevated level was detected on procaspase-8. These findings suggest that PA activated caspase-3 but not caspase-8. Numerous nuclei of PA treated A549 cells stained brightly by anti-cleaved PARP antibody through High Content Screening. This result further confirmed that PA induced apoptotic cell death was mediated through activation of caspase-3 and eventually led to PARP cleavage. Treatment of A549 cells with PA resulted in a strong inhibition of NF-kappaB activation, which was consistent with a decrease in nuclear levels of NF-kappaB/p65 and NF-kappaB/p50 and the elevation of p53 and p21. Besides that, we also showed that PA significantly inhibited the invasion of A549 cells in a dose-dependent manner through reducing the secretion of MMP-2 of A549 cells gelatin zymography assay. Our findings not only provide the effects of PA, but may also be important in the design of therapeutic protocols that involve targeting of either p53 or NF-kappaB.

[702]

TÍTULO / TITLE: - Diagnostic value of the FHIT and p16 mRNA loss and the K-ras gene mutation in pleural fluids for malignant pleural effusion.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - *Cancer Biomark*. 2013;13(1):49-58. doi: 10.3233/CBM-130319.

●● Enlace al texto completo (gratis o de pago) [3233/CBM-130319](#)

AUTORES / AUTHORS: - Li J; Bao QL; Wang Y; Hu YM; Chen P

INSTITUCIÓN / INSTITUTION: - Department of Pulmonary Medicine, Affiliated Hospital of Jiangsu University, Zhenjiang, Jiangsu, China.

lijian541226@163.com

RESUMEN / SUMMARY: - Inactivation of the tumor suppressor genes and activation of oncogenes are involved in the development of cancer. The aim of this study was to evaluate the diagnostic value of the fragile histidine triad (FHIT) and p16 mRNA loss and the K-ras gene mutation in distinguishing malignant from benign pleural effusion. A total of 50 patients with malignant pleural effusion and 30 patients with benign pleural effusion were enrolled in this study. All pleural fluid specimens were evaluated in parallel by cytology, reverse transcriptase-PCR for the loss of FHIT and p16 mRNA, and PCR-SSCP (single-stranded conformation polymorphism) for the mutation of K-ras gene. The detection rates of FHIT and p16 mRNA loss were significantly higher in malignant than in benign pleural effusion ($P < 0.001$ and $P = 0.001$). The K-ras mutations were more frequent in malignant than benign pleural effusion ($P = 0.006$). The sensitivity and specificity were 58% and 93% for FHIT loss, 48% and 90% for p16 loss, and 44% and 87% for the K-ras mutation, respectively. In combined evaluation with both FHIT and p16 loss, the sensitivity was 68%, and specificity was 90%. The combination of the three molecular markers reached 74% sensitivity, whereas the combined use of the cytology and the three markers increased the diagnostic yield of the former by 38%. More than one third of cytology negative malignant pleural effusion could be identified by at least one of the three markers. These results suggest that the detection of FHIT and p16 mRNA loss and the k-ras gene mutation in pleural fluid could be helpful adjunct to cytology in the diagnosis of malignant pleural effusion.

[703]

TÍTULO / TITLE: - Electroporation as a strategy to promote HtrA1 gene uptake and chemotherapy efficacy in a mouse model of mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Front Biosci (Elite Ed). 2013 Jun 1;5:974-81.

AUTORES / AUTHORS: - Spugnini EP; Cardillo I; Fanciulli M; Crispi S; Vincenzi B; Boccellino M; Quagliuolo L; Baldi A

INSTITUCIÓN / INSTITUTION: - SAFU Department, Regina Elena Cancer Institute, Rome, Italy.

RESUMEN / SUMMARY: - There is not a consensus on the best therapeutic approach to mesothelioma and the prognosis is still dismal. We have recently demonstrated that HtrA1 is a potential therapeutic target in mesothelioma cells. In this manuscript we describe that electroporation in a mouse mesothelioma xenograft was able to facilitate the expression of exogenous HtrA1 injected intra-lesionally in the tumors and to increase the penetration in the neoplastic cells of cisplatin given intra-peritoneally. Indeed, HtrA1 over-expression caused

a significant slowing down of tumor growth; moreover, cisplatin efficacy in reducing tumor mass was amplified by electroporation and this phenomenon was even more significant when combining the electroporation of cisplatin and HtrA1. Considering that a substantial number of mesothelioma patients develop early local recurrence, even with radical resection combined with aggressive chemo- and radiotherapy, this multi-modality approach could be very effective in improving local tumor control after surgery. The identification of effective combination coupled with the development of novel equipments and electrodes will be instrumental in planning the translation of these results to humans as per correct laboratory-clinical interface.

[704]

TÍTULO / TITLE: - Expression of Transforming Growth Factor beta1 and E-Cadherin Proteins in Pulmonary Adenocarcinoma: Its Significance in Tumor Progression.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Res. %2!?[y+9?%ak

<http://cancerres.aacrjournals.org/> ●● Cancer Research: <> Treat. 2013 Jun;45(2):118-25. doi: 10.4143/crt.2013.45.2.118. Epub 2013 Jun 30.

●● Enlace al texto completo (gratis o de pago) [4143/crt.2013.45.2.118](#)

AUTORES / AUTHORS: - Kim CH; Park SY; Yoo J

INSTITUCIÓN / INSTITUTION: - Department of Internal Medicine, St. Vincent's Hospital, The Catholic University of Korea College of Medicine, Suwon, Korea.

RESUMEN / SUMMARY: - PURPOSE: This study was conducted in order to investigate the significance of transforming growth factor beta1 (TGFbeta1) and E-cadherin proteins in tumor progression of lung adenocarcinoma and to evaluate their differential expression in association with morphologic characteristics. MATERIALS AND METHODS: A total of 65 pulmonary adenocarcinomas were reclassified according to the new classification system proposed by the International Association for the Study of Lung Cancer, American Thoracic Society, and European Respiratory Society. Tumor samples from 20 adenocarcinomas in situ (AIS, formerly bronchioloalveolar carcinoma [BAC]), 9 minimally invasive adenocarcinomas (MIA, formerly BAC with ≤ 5 mm invasion), 17 lepidic predominant adenocarcinomas (LPA, formerly mixed adenocarcinoma showing nonmucinous BAC features with >5 mm invasion), and 19 invasive adenocarcinomas with no BAC features were analyzed by immunohistochemistry for expression of TGFbeta1 and E-cadherin proteins. RESULTS: TGFbeta1 expression was detected in 46% (21/46) of noninvasive elements and 87% (39/45) of invasive elements ($p=0.001$). E-Cadherin expression was less frequent in invasive components than in noninvasive components (38% vs. 65%, $p=0.009$). Negative correlation was identified between TGFbeta1 expression and E-cadherin expression in noninvasive elements ($p=0.022$). More importantly, significantly higher frequency of TGFbeta1 expression was observed in noninvasive components of LPA (14/17,

82%), compared with those of either AIS (5/20, 25%) or MIA (2/9, 22%) (p=0.008). CONCLUSION: Our data indicate involvement of both TGFbeta1 and E-cadherin proteins in tumor progression of pulmonary adenocarcinoma. It is noteworthy that TGFbeta1 up-regulation precedes alveolar destruction by invasion of tumor cells. TGFbeta1 may thus have the potential to improve lung adenocarcinoma diagnostics and therapeutics.

[705]

TÍTULO / TITLE: - FDG PET-CT in Non-small Cell Lung Cancer: Relationship between Primary Tumor FDG Uptake and Extensional or Metastatic Potential.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):2925-9.

AUTORES / AUTHORS: - Zhu SH; Zhang Y; Yu YH; Fu Z; Kong L; Han DL; Fu L; Yu JM; Li J

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Shandong Cancer Hospital and Institute, Shandong Academy of Medical Sciences, Jinan, China E-mail : sdwufx@163.com.

RESUMEN / SUMMARY: - Objective: To explore the relationships between primary tumor 18F-FDG uptake measured as the SUVmax and local extension, and nodal or distant organ metastasis in patients with NSCLC on pretreatment PET-CT. Methods: 93 patients with NSCLC who underwent 18F-FDG PET-CT scans before the treatment were included in the study. Primary tumor SUVmax was calculated; clinical stages, presence of local extension, nodal and distant organ metastases were recorded. The patients with SUVmax \geq 2.5 were divided into low and high SUVmax groups by using the median SUVmax. The low SUVmax group consisted of 45 patients with SUVmax $<$ 10.5, the high SUVmax group consisted of 46 patients with SUVmax \geq 10.5. Their data were compared statistically. Results: 91 cases with SUVmax \geq 2.5 were included for analysis. The mean SUVmax in patients without any metastasis was 7.42 \pm 2.91 and this was significantly lower than that (12.18 \pm 4.94) in patients with nodal and/or distant organ metastasis (P=0.000). In the low SUV group, 19 patients had local extension, 22 had nodal metastasis, and 9 had distant organ metastasis. In the high SUV group, 31 patients had local extension, 37 had nodal metastasis, and 18 had distant organ metastases. There was a significant difference in local extension (P =0.016), distant organ metastasis (P =0.046), and most significant difference in nodal metastasis rate (P =0.002) between the two groups. In addition, there was a moderate correlation between SUVmax and tumor size (r = 0.642, P<0.001), tumor stage (r = 0.546, P<0.001), node stage (r = 0.388, P<0.001), and overall stage (r = 0.445, P= 0.000). Conclusion: Higher primary tumor SUVmax predicts higher extensional or metastatic potential in patients with NSCLC. Patients with higher SUVmax may need a close follow-up and more reasonable individual treatment because of their higher extensional and metastatic potential.

[706]

TÍTULO / TITLE: - Inhibitory effects of syk transfection on lung cancer cell invasion.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(5):3001-3.

AUTORES / AUTHORS: - Peng CL; Zhang Y; Sun QF; Zhao YP; Hao YT; Zhao XG; Cong B

INSTITUCIÓN / INSTITUTION: - Department of Thoracic, The Second Hospital of Shandong University, Jinan, China E-mail : pechuliang@yahoo.com.cn.

RESUMEN / SUMMARY: - Objective: Spleen tyrosine kinase (Syk) is closely related to tumor invasion and metastasis, and has been shown to have potential inhibitory effects in tumors. In this study, we constructed a eukaryotic expression vector for Syk and analyzed its effects on invasive ability of the A549 non-small cell lung cancer cell line in vitro. Methods: A fragment of Syk was obtained by RT-PCR from human lung cancer cells and cloned into the expression vector pLNCXSyk. After restriction endonuclease digestion, PCR and DNA sequencing confirmation, the recombinant Syk expression plasmid was transfected into A549 human lung cancer cells using lipofectamine protocols. After selection, the cells stably expressed Syk. Detection of Syk expression of the cells by RT-PCR, and invasive ability were examined. Results: The eukaryotic expression plasmid pLNCXSyk was constructed and expressed stably in the A549 human lung cancer cells. The RT-PCR results showed that Syk mRNA expression was upregulated significantly ($P < 0.05$). Lower invasion through a basal membrane were apparent after transfection ($P < 0.05$). Conclusions: A eukaryotic expression plasmid to cause Syk expression in lung cancer cells can obviously inhibit their invasive ability in vitro.

[707]

TÍTULO / TITLE: - Development of Chitosan-based Dry Powder Inhalation System of Cisplatin for Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Indian J Pharm Sci. 2012 Nov;74(6):521-6. doi: 10.4103/0250-474X.110584.

●● Enlace al texto completo (gratis o de pago) [4103/0250-474X.110584](#)

AUTORES / AUTHORS: - Singh DJ; Lohade AA; Parmar JJ; Hegde DD; Soni P; Samad A; Menon MD

INSTITUCIÓN / INSTITUTION: - Department of Pharmaceutics, Bombay College of Pharmacy, Kalina, Santacruz (E), Mumbai-400 098, India.

RESUMEN / SUMMARY: - Cisplatin, a platinum compound, exerts its cytotoxic effects by coordinating to DNA where it inhibits both replication and

transcription, and induces programmed cell death. It is used in the treatment of non-small cell lung cancer. In the present study, an attempt was made to achieve better treatment of lung cancer by direct lung delivery of cisplatin microparticulate systems, which helps to localize the drug in the lungs, and also provide sustained action. Cisplatin-loaded chitosan microspheres were prepared by emulsification and ionotropic gelation method, and characterized for drug content, particle size, densities, flow properties, moisture content, and surface topography by SEM and in vitro drug release was evaluated in simulated lung fluid at 37 degrees at pH 7.4. The respirable or fine particle fraction (FPF) was determined by using twin stage impinger (TSI). Further stability evaluation of cisplatin-loaded DPI systems was carried out at 25 degrees /60% RH and at 40 degrees /75% RH.

[708]

TÍTULO / TITLE: - Mitochondrial genome microsatellite instability and copy number alteration in lung carcinomas.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Asian Pac J Cancer Prev. 2013;14(4):2393-9.

AUTORES / AUTHORS: - Dai JG; Zhang ZY; Liu QX; Min JX

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Cardiovascular Surgery of Xinqiao Hospital, the Third Military Medical University, Chongqing, China.

RESUMEN / SUMMARY: - **OBJECTIVE:** Mitochondrial DNA (mtDNA) is considered a hotspot of mutations in various tumors. However, the relationship between microsatellite instability (MSI) and mtDNA copy number alterations in lung cancer has yet to be fully clarified. In the current study, we investigated the copy number and MSI of mitochondrial genome in lung carcinomas, as well as their significance for cancer development. **METHODS:** The copy number and MSI of mtDNA in 37 matched lung carcinoma/adjacent histological normal lung tissue samples were examined by polymerase chain reaction-single strand conformation polymorphism (PCR-SSCP) assays for sequence variation, followed by sequence analysis and fluorogenic 5'-nuclease real-time PCR. Student's t test and linear regression analyses were employed to analyze the association between mtDNA copy number alterations and mitochondrial MSI (mtMSI). **RESULTS:** The mean copy number of mtDNA in lung carcinoma tissue samples was significantly lower than that of the adjacent histologically normal lung tissue samples ($p < 0.001$). mtMSI was detected in 32.4% (12/37) of lung carcinoma samples. The average copy number of mtDNA in lung carcinoma samples containing mtMSI was significantly lower than that in the other lung carcinoma samples ($P < 0.05$). **CONCLUSIONS:** Results suggest that mtMSI may be an early and important event in the progression of lung carcinogenesis, particularly in association with variation in mtDNA copy number.

[709]

TÍTULO / TITLE: - Ouabain suppresses the migratory behavior of lung cancer cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jul 10;8(7):e68623. doi: 10.1371/journal.pone.0068623. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0068623](#)

AUTORES / AUTHORS: - Pongrakhananon V; Chunchacha P; Chanvorachote P

INSTITUCIÓN / INSTITUTION: - Department of Pharmacology and Physiology, Faculty of Pharmaceutical Sciences and Cell-based Drug and Health Product Development Research Unit, Chulalongkorn University, Bangkok, Thailand.

RESUMEN / SUMMARY: - The migratory capability of cancer cells is one of the most important hallmarks reflecting metastatic potential. Ouabain, an endogenous cardiac glycoside produced by the adrenal gland, has been previously reported to have anti-tumor activities; however, its role in the regulation of cancer cell migration remains unknown. The present study has revealed that treatment with ouabain at physiological concentrations is able to inhibit the migratory activities of human lung cancer H292 cells. The negative effects of ouabain were found to be mediated through the suppression of migration regulatory proteins, such as focal adhesion kinase (FAK), ATP-dependent tyrosine kinase (Akt), and cell division cycle 42 (Cdc42). We found that the observed actions of ouabain were mediated via a reactive oxygen species (ROS)-dependent mechanism because the addition of ROS scavengers (N-acetylcysteine and glutathione) could reverse the effect of ouabain on cell migration. Furthermore, ouabain was shown to inhibit the spheroidal tumor growth and decrease the cancer cell adhesion to endothelial cells. However, the compound had no significant effect on anoikis of the cells. Together, these findings shed light on the understanding of cancer cell biology by exploring the novel function of this endogenous human substance.

[710]

TÍTULO / TITLE: - Antineoplastic effects of deoxyelephantopin, a sesquiterpene lactone from *Elephantopus scaber*, on lung adenocarcinoma (A549) cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Integr Med. 2013 Jul;11(4):269-77. doi: 10.3736/jintegrmed2013040.

●● Enlace al texto completo (gratis o de pago)

[3736/jintegrmed2013040](#)

AUTORES / AUTHORS: - Kabeer FA; Sreedevi GB; Nair MS; Rajalekshmi DS; Gopalakrishnan LP; Kunjuraman S; Prathapan R

INSTITUCIÓN / INSTITUTION: - Division of Cancer Research, Regional Cancer Centre, Thiruvananthapuram, Pin 695011, Kerala, India; E-mail:

remanipr@gmail.com.

RESUMEN / SUMMARY: - OBJECTIVE: Deoxyelephantopin, a sesquiterpene lactone from *Elephantopus scaber*, showed inhibition of the growth of various tumor cells in vitro. In the present study, we investigated the cytotoxicity and apoptosis-inducing capacity of deoxyelephantopin on lung adenocarcinoma (A549) cells. METHODS: The cytotoxic effect of deoxyelephantopin on A549 cells and normal lymphocytes was evaluated using 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay and 50% inhibitory concentration (IC50) value was determined. The self-renewal and proliferating potential of A549 cells after treatment with deoxyelephantopin were examined by colony formation assay. Cellular morphology of deoxyelephantopin-treated cells was observed using phase-contrast microscopy. The induction of apoptosis was evaluated using acridine orange and ethidium bromide staining, Hoechst 33342 staining, terminal deoxynucleotidyl transferase-mediated dUTP biotin nick end-labeling (TUNEL) assay, DNA fragmentation analysis and Annexin V-fluorescein isothiocyanate staining by flow cytometry. Activation of caspases was detected using fluorogenic substrate specific to caspases 2, 3, 8 and 9 and flow cytometric analysis. The total cellular DNA content and expression of cleaved poly (ADP-ribose) polymerase was also analyzed. RESULTS: Deoxyelephantopin exhibited cytotoxicity to A549 cells (IC50 = 12.287 µg/mL), however, there was no toxicity towards normal human lymphocytes. Deoxyelephantopin suppressed the colony-forming ability of A549 cells in a dose-dependent manner. Acridine orange, ethidium bromide and Hoechst 33342 staining showed cell shrinkage, chromosomal condensation and nuclear fragmentation, indicating induction of apoptosis. Deoxyelephantopin increased apoptosis of A549 cells, as evidenced by more TUNEL-positive cells. DNA fragmentation and Annexin V staining revealed late-stage apoptotic cell population. Deoxyelephantopin inhibited A549 cell growth by cell cycle arrest at G2/M phase and induced apoptosis through both extrinsic and intrinsic pathways. CONCLUSION: These results suggest that deoxyelephantopin has great potential as a new chemotherapeutic agent to be developed further for the treatment of lung cancer.

[711]

TÍTULO / TITLE: - NK cells from malignant pleural effusions are potent antitumor effectors: A clue for adoptive immunotherapy?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncoimmunology. 2013 Apr 1;2(4):e23638.

●● Enlace al texto completo (gratis o de pago) [4161/onci.23638](#)

AUTORES / AUTHORS: - Vacca P; Martini S; Mingari MC; Moretta L

INSTITUCIÓN / INSTITUTION: - Department of Experimental Medicine and Center of Excellence for Biomedical Research; University of Genova; Genova Italy.

RESUMEN / SUMMARY: - Natural killer (NK) cells exert potent antitumor activity. However, NK cells infiltrating solid tumors are severely impaired in their function. Remarkably, NK cells isolated from malignant pleural effusions kill very

efficiently tumor cells upon exposure to interleukin-2, offering an important clue for the development of novel approaches for tumor immunotherapy.

[712]

TÍTULO / TITLE: - miR-149 Inhibits Non-Small-Cell Lung Cancer Cells EMT by Targeting FOXM1.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biochem Res Int. 2013;2013:506731. doi: 10.1155/2013/506731. Epub 2013 May 16.

●● Enlace al texto completo (gratis o de pago) [1155/2013/506731](#)

AUTORES / AUTHORS: - Ke Y; Zhao W; Xiong J; Cao R

INSTITUCIÓN / INSTITUTION: - Cancer Center, Union Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan 430022, China.

RESUMEN / SUMMARY: - MicroRNAs (miRNAs) have been implied to play crucial roles for epithelial-to-mesenchymal transition (EMT) of non-small-cell lung cancer cells (NSCLC cells). Here we found that the expression of miR-149, downregulated in lung cancer, was inversely correlated with invasive capability and the EMT phenotype of NSCLC cells. miR-149 inhibited EMT in NSCLC cells. Furthermore, we demonstrated that miR-149 directly targeted Forkhead box M1 (FOXM1), and FOXM1 was involved in the EMT induced by TGF- beta 1 in A549 cells. Overexpression of FOXM1 restored EMT process inhibited by miR-149. Our work suggested that miR-149 might be an EMT suppressor in NSCLC cells.

[713]

TÍTULO / TITLE: - Human Apurinic/Apyrimidinic Endonuclease siRNA Inhibits the Angiogenesis Induced by X-Ray Irradiation in Lung Cancer Cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Med Sci. 2013 May 20;10(7):870-82. doi: 10.7150/ijms.5727. Print 2013.

●● Enlace al texto completo (gratis o de pago) [7150/ijms.5727](#)

AUTORES / AUTHORS: - Gu X; Cun Y; Li M; Qing Y; Jin F; Zhong Z; Dai N; Qian C; Sui J; Wang D

INSTITUCIÓN / INSTITUTION: - 1. Cancer Center, Daping Hospital and Research Institute of Surgery, Third Military Medical University, Chongqing 400042, China; ; 2. Department of Oncology, 285th Hospital of the Chinese People's Liberation Army, Handan 056001, China.

RESUMEN / SUMMARY: - Objective: Radiotherapy is an important and effective treatment method for non-small cell lung cancer (NSCLC). Nonetheless, radiotherapy can alter the expression of proangiogenic molecules and induce angiogenesis. Human apurinic/aprimidinic endonuclease (APE1) is a multifunctional protein, which has DNA repair and redox function. Our previous studies indicated APE1 is also a crucial angiogenic regulator. Thus, we

investigated the effect of APE1 on radiation-induced angiogenesis in lung cancer and its underlying mechanism. Methods: Tumor specimens of 136 patients with NSCLC were obtained from 2003 to 2008. The APE1 and vascular endothelial growth factor (VEGF) expression, as well as microvessel density (MVD) were observed with immunohistochemistry in tumor samples. Human lung adenocarcinoma A549 cells were treated with Ad5/F35-APE1 siRNA and/or irradiation, and then the cells were used for APE1 analysis by Western blot and VEGF analysis by RT-PCR and ELISA. To elucidate the underline mechanism of APE1 on VEGF expression, HIF-1alpha protein level was determined by Western blot, and the DNA binding activity of HIF-1alpha was detected by EMSA. Transwell migration assay and capillary-like structure assay were used to observe the migration and capillary-like structure formation ability of human umbilical veins endothelial cells (HUVECs) that were co-cultured with Ad5/F35-APE1 siRNA and (or) irradiation treated A549 cells culture medium. Results: The high expression rates of APE1 and VEGF in NSCLC were 77.94% and 66.18%, respectively. The expressions of APE1 was significantly correlated with VEGF and MVD ($r=0.369$, $r=0.387$). APE1 and VEGF high expression were significantly associated with reduced disease free survival (DFS) time. The high expressions of APE1 and VEGF on A549 cells were concurrently induced by X-ray irradiation in a dose-dependent manner. Silencing of APE1 by Ad5/F35-APE1 siRNA significantly decreased DNA binding activity of HIF-1alpha and suppressed the expression of VEGF in A549 cells, moreover, significantly inhibited the endothelial cells immigration and capillary-like structure formation induced by irradiated A549 cells. Conclusion: Our results indicate that APE1 may play a crucial role in angiogenesis induced by irradiation. Administration of Ad5/F35-APE1 siRNA during radiotherapy could be a potent adjuvant therapeutic approach to enhance the radiotherapy response, effectively eliminate metastasis and improve the efficacy of radiotherapy for NSCLC.

[714]

TÍTULO / TITLE: - Myeloid-derived suppressor cells and associated events in urethane-induced lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clinics (Sao Paulo). 2013 Jun;68(6). pii: S1807-59322013000600858. doi: 10.6061/clinics/2013(06)22.

●● Enlace al texto completo (gratis o de pago) [6061/clinics/2013\(06\)22](#)

AUTORES / AUTHORS: - Teixeira D; Almeida JS; Visniauskas B; Gomes GN; Hirata AE; Bueno V

INSTITUCIÓN / INSTITUTION: - Immunology Division, Federal University of Sao Paulo, Sao PauloSP,, Brazil.

RESUMEN / SUMMARY: - OBJECTIVES: Myeloid-derived suppressor cells contribute to the immunosuppressive microenvironment during tumor development and limit the efficacy of cancer immunotherapy. Identifying

myeloid-derived suppressor cells and associated factors is the first step in creating strategies to reverse the suppressive effects of these cells on the immune system. METHODS: To induce lung cancer, we administered 2 doses of urethane to BALB/c mice and observed these animals for 120 days. After this period, we evaluated the percentage of myeloid-derived suppressor cells in the blood, lung and bone marrow. The expression of alpha-smooth muscle actin, transforming growth factor-beta, Toll-like receptor 2, Toll-like receptor 4, and interleukin-6 was also determined in the lung tissue. RESULTS: Myeloid-derived suppressor cells were increased in all evaluated tissues after lung cancer development in association with increased Toll-like receptor 4 expression and decreased interleukin-6 expression in the lung. We observed alpha-smooth muscle actin and transforming growth factor-beta expression in lung nodules. CONCLUSIONS: We believe that the early diagnosis of cancer through determining the blood levels of myeloid-derived suppressor cells followed by the depletion of these cells should be further investigated as a possible approach for cancer treatment.

[715]

TÍTULO / TITLE: - Effects of Fe₃O₄ Magnetic Nanoparticles on A549 Cells.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Mol Sci. 2013 Jul 25;14(8):15546-60. doi: 10.3390/ijms140815546.

●● Enlace al texto completo (gratis o de pago) [3390/ijms140815546](#)

AUTORES / AUTHORS: - Watanabe M; Yoneda M; Morohashi A; Hori Y; Okamoto D; Sato A; Kurioka D; Nittami T; Hirokawa Y; Shiraishi T; Kawai K; Kasai H; Totsuka Y

INSTITUCIÓN / INSTITUTION: - Laboratory for Medical Engineering, Division of Materials and Chemical Engineering, Graduate School of Engineering, Yokohama National University, Yokohama 240-8501, Japan.

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RESUMEN / SUMMARY: - Fe₃O₄ magnetic nanoparticles (MgNPs-Fe₃O₄) are widely used in medical applications, including magnetic resonance imaging, drug delivery, and in hyperthermia. However, the same properties that aid their utility in the clinic may potentially induce toxicity. Therefore, the purpose of this study was to investigate the cytotoxicity and genotoxicity of MgNPs-Fe₃O₄ in A549 human lung epithelial cells. MgNPs-Fe₃O₄ caused cell membrane damage, as assessed by the release of lactate dehydrogenase (LDH), only at a high concentration (100 µg/mL); a lower concentration (10 µg/mL) increased the production of reactive oxygen species, increased oxidative damage to DNA, and decreased the level of reduced glutathione. MgNPs-Fe₃O₄ caused a dose-dependent increase in the CD44⁺ fraction of A549 cells. MgNPs-Fe₃O₄ induced the expression of heme oxygenase-1 at a concentration of 1 µg/mL, and in a dose-dependent manner. Despite these effects, MgNPs-Fe₃O₄ had minimal effect on cell viability and elicited only a small increase in the number of

cells undergoing apoptosis. Together, these data suggest that MgNPs-Fe₃O₄ exert little or no cytotoxicity until a high exposure level (100 µg/mL) is reached. This dissociation between elevated indices of cell damage and a small effect on cell viability warrants further study.

[716]

TÍTULO / TITLE: - Multidisciplinary modalities achieve encouraging long-term survival in resectable limited-disease esophageal small cell carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jul 9;8(7):e69259. doi: 10.1371/journal.pone.0069259. Print 2013.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1371/journal.pone.0069259](#)

AUTORES / AUTHORS: - Hou X; Wei JC; Wu JX; Wang X; Fu JH; Lin P; Yang HX
INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Sun Yat-sen University Cancer Center, Guangzhou City, Guangdong Province, People's Republic of China ; State Key Laboratory of Oncology in South China, Guangzhou City, Guangdong Province, People's Republic of China.

RESUMEN / SUMMARY: - BACKGROUND: The management of limited-disease esophageal small cell carcinoma is not well defined, and the role of surgery is still controversial. We aim to determine the optimal treatment strategy in limited-disease of esophageal small cell carcinoma. METHODS AND FINDINGS: We conducted a retrospective review of 141 patients with limited-disease esophageal small cell carcinoma from 3 institutions in China who underwent treatment between July 1994 and September 2008, July 1994 and July 2011, and June 2004 and December 2010, respectively. The survival rate was calculated by the Kaplan-Meier method, and the log-rank test was used to assess the survival differences between the groups. Cox proportional hazards model were used to further determine the independent factors impacting overall survival. The median survival time was 16.1 months for the entire cohort of patients, with a 5-year survival rate of 6.7%. The median survival times for surgery alone, surgery combined with chemotherapy, surgery combined with radiotherapy, surgery combined with chemotherapy and radiotherapy, chemotherapy plus radiotherapy, and chemotherapy alone were 18.0 months, 15.0 months, 23.0 months, 25.0 months, 17.1 months, and 6.1 months, respectively; the corresponding 5-year survival rates were 0%, 15.4%, 0%, 38.9%, 0%, and 0%, respectively. For the 105 patients who underwent R0 resection, the median disease-free survival time was 12.0 months, with a 95% confidence interval of 9.5 months to 14.5 months. The multivariate Cox regression analysis demonstrated that advanced pathological staging ($p = 0.003$), and pure esophageal small cell carcinoma ($p = 0.035$) were independent factors decreasing overall survival. CONCLUSIONS: Our data suggested that multidisciplinary modalities achieved encouraging long-term

survival in patients with resectable limited-disease of esophageal small cell carcinoma.

[717]

TÍTULO / TITLE: - Combination Therapy of VEGF-Trap and Gemcitabine Results in Improved Anti-Tumor Efficacy in a Mouse Lung Cancer Model.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jul 9;8(7):e68589. doi: 10.1371/journal.pone.0068589. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0068589](#)

AUTORES / AUTHORS: - Zhou S; Yang Y; Yang Y; Tao H; Li D; Zhang J; Jiang G; Fang J

INSTITUCIÓN / INSTITUTION: - Department of Histology and Embryology, Tongji University School of Medicine, Shanghai, China.

RESUMEN / SUMMARY: - BACKGROUND: Angiogenesis is essential for the growth and metastasis of cancer. Although anti-angiogenic agents, particularly vascular endothelial growth factor (VEGF) inhibitors, have exhibited single-agent activity, there is considerable interest in combining these novel drugs with conventional chemotherapy reagents to achieve an optimal clinical efficacy. The objective of this study was to evaluate the benefits of the combination therapy of vascular endothelial growth factor trap (VEGF-Trap) with gemcitabine in a lung tumor model. METHODS: A luciferase-expressing Lewis lung carcinoma (LLC) model was established in C57BL/6J mice and tumor-bearing mice were randomized into control, VEGF-Trap, gemcitabine and VEGF-Trap/gemcitabine combination groups. Tumor growth and animal survival were monitored. Tumor microvessel density and cell proliferation were evaluated by CD31 and Ki-67 immunohistochemical analysis. TUNEL assay was performed to detect apoptotic cells. The protein levels of Cyclin D1, Pro-Caspase-3, Bcl-2, MMP2 and MMP9 in tumor extracts were examined by western blot. RESULTS: VEGF-Trap in combination with gemcitabine showed significantly enhanced inhibition of tumor growth and prolonged mouse survival compared to the VEGF-Trap or gemcitabine monotherapy. The VEGF-Trap/gemcitabine combination therapy not only potently inhibited tumor angiogenesis and cell proliferation, but also increased cellular apoptosis within tumor tissues. In addition, the combination treatment markedly down-regulated the expression of proliferation, anti-apoptosis and invasion related proteins. CONCLUSION: Combination therapy using VEGF-Trap and gemcitabine resulted in improved anti-tumor efficacy in a lung cancer model and VEGF-Trap/gemcitabine combination might represent a promising strategy in the treatment of human lung cancer.

[718]

TÍTULO / TITLE: - Combination of Low Concentration of (-)-Epigallocatechin Gallate (EGCG) and Curcumin Strongly Suppresses the Growth of Non-Small Cell Lung Cancer in Vitro and in Vivo through Causing Cell Cycle Arrest.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Mol Sci. 2013 Jun 5;14(6):12023-36. doi: 10.3390/ijms140612023.

●● Enlace al texto completo (gratis o de pago) [3390/ijms140612023](#)

AUTORES / AUTHORS: - Zhou DH; Wang X; Yang M; Shi X; Huang W; Feng Q

INSTITUCIÓN / INSTITUTION: - Department of Nutrition and Food Safety, Nanjing Medical University, Nanjing 211166, Jiangsu, China. qingfeng@njmu.edu.cn.

RESUMEN / SUMMARY: - (-)-Epigallocatechin gallate (EGCG) and curcumin are two naturally derived agents that have been widely investigated worldwide. They exhibit their anti-tumor effects in many types of cancers. In the current study, the effect of the combination of the two agents on non-small cell lung cancer (NSCLC) cells was investigated. The results revealed that at low concentrations, the combination of the EGCG and curcumin strongly enhanced cell cycle arrest. Flow cytometry analysis showed that the cells were arrested at G1 and S/G2 phases. Two main cell cycle related proteins cyclin D1 and cyclin B1 were significantly inhibited at the presence of EGCG and curcumin. EdU (5-ethynyl-2'-deoxyuridine) fluorescence staining showed that the DNA replication was significantly blocked. A clonal growth assay also confirmed a marked repression of cell growth. In a lung cancer xenograft nude mice model, combination of EGCG and curcumin exhibited protective effect against weight loss due to tumor burden. Tumor growth was strongly repressed by the combination of the two agents, without causing any serious side-effect. Overall, these results strongly suggest that EGCG in combination with curcumin could be a candidate for chemoprevention agent of NSCLC.

[719]

TÍTULO / TITLE: - Intensity-modulated radiotherapy and volumetric-modulated arc therapy for malignant pleural mesothelioma after extrapleural pleuropneumectomy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Appl Clin Med Phys. 2013 Jul 8;14(4):4130. doi: 10.1120/jacmp.v14i4.4130.

AUTORES / AUTHORS: - Krayenbuehl J; Riesterer O; Graydon S; Dimmerling P; Kloock S; Ciernik IF

INSTITUCIÓN / INSTITUTION: - University Hospital Zurich. jerome.krayenbuehl@usz.ch.

RESUMEN / SUMMARY: - Radiotherapy reduces the local relapse rate after pleuropneumectomy of malignant pleural mesothelioma (MPM). The optimal treatment technique with photons remains undefined. Comparative planning for intensity-modulated radiotherapy (IMRT) and volumetric-modulated arc therapy (VMAT) was performed. Six MPM patients with significant postoperative

intrathoracic air cavities were planned with IMRT and VMAT. A dose comparison for the targets and organ at risks (OAR) was performed. Robustness was assessed in respect to the variation of target dose with change in volume of air cavities. VMAT reduced the dose to the contralateral lung by reducing the volume covered by 13 Gy and 20 Gy by a factor 1.8 and 2.8, in respect to IMRT (p = 0.02). Dose distribution with VMAT was the most stable technique in regard to postsurgical air cavity variation. For IMRT, V90, V95, and the minimal target dose decreased by 40%, 64%, and 12% compared to 29%, 47%, and 7% with VMAT when air cavity decreased. Two arcs compared to one arc decreased the dose to all the organs at risk (OAR) while leaving PTV dose coverage unchanged. Increasing the number of arcs from two to three did not reduce the dose to the OAR further, but increased the beam-on time by 50%. Using partial arcs decreased the beam-on time by 43%. VMAT allows a lower lung dose and is less affected by the air cavity variation than IMRT. The best VMAT plans were obtained with two partial arcs. VMAT seems currently the most suitable technique for the treatment of MPM patients when air cavities are remaining and no adaptive radiotherapy is performed.

[720]

TÍTULO / TITLE: - Tocopherols and tocotrienols as anticancer treatment for lung cancer: future nutrition.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Dis. 2013 Jun;5(3):349-52. doi: 10.3978/j.issn.2072-1439.2013.04.03.

●● [Enlace al texto completo \(gratis o de pago\) 3978/j.issn.2072-1439.2013.04.03](#)

AUTORES / AUTHORS: - Zarogoulidis P; Cheva A; Zarampouka K; Huang H; Li C; Huang Y; Katsikogiannis N; Zarogoulidis K

INSTITUCIÓN / INSTITUTION: - Pulmonary Department-Oncology Unit, "G. Papanikolaou" General Hospital, Aristotle University of Thessaloniki, Thessaloniki, Greece; ; University Pulmonary Department, "Ruhrland" Clinic, University of Duisburg-Essen, Essen, Germany;

RESUMEN / SUMMARY: - Nutrition has been known for ages to shield the immune system against several formulations that deregulate normal DNA repair mechanisms, and induce tumorigenesis. Vitamins and in specific Vit E and its members tocopherols (alpha-, beta-, gamma-, delta-) and tocotrienols (alpha-, beta-, gamma-, delta-) have demonstrated strong association with the prevention of cancer and inhibition of tumor, both in vitro and in vivo. Vitamin E has also demonstrated effective role against chemotherapy resistant cancer cell evolution and a protective role in acute interstitial disease. Several formulations of Vitamin E have been investigated conjugated with different carriers as nano-formulations and administered in different forms. Additionally, several tumorigenic pathways have been investigated separately in an effort to identify which member of Vitamin E inhibits efficiently every pathway. Vitamin E

presented efficiency against specific subhistology types of lung cancer. Finally, in the current work up to date information regarding novel formulations with Vitamin E and inhibition pathways are going to be presented and commented.

[721]

TÍTULO / TITLE: - Bronchioloalveolar carcinoma as a second malignancy in a pediatric osteosarcoma survivor: case report.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - World J Surg Oncol. 2013 Jun 12;11:135. doi: 10.1186/1477-7819-11-135.

●● Enlace al texto completo (gratis o de pago) [1186/1477-7819-11-135](#)

AUTORES / AUTHORS: - Okui M; Goto T; Hayashi Y; Nakayama R; Kohno M

INSTITUCIÓN / INSTITUTION: - Division of General Thoracic Surgery, Department of Surgery, School of Medicine, Keio University, Tokyo, Japan.

RESUMEN / SUMMARY: - BACKGROUND: Primary lung cancer is extremely rare in children, while secondary malignancies reportedly develop in 2% to 3% of pediatric osteosarcoma survivors. CASE PRESENTATION: A 14-year-old girl was found to have two pulmonary lesions on computed tomography. These tumors had developed 1 year after osteosarcoma surgery. Segmentectomy of right segment 1 and wedge resection of right segment 9 were performed. Both lesions were completely resected and postoperative histopathological examination revealed metastasis of osteosarcoma and bronchioloalveolar carcinoma, respectively. CONCLUSION: Bronchioloalveolar carcinoma may present as a solitary pulmonary lesion indistinguishable from a metastatic lesion and should be included in the differential diagnosis of pulmonary lesions in survivors of pediatric cancer. Thus, pulmonary lesions identified in these patients should be biopsied or resected to establish a histological diagnosis.

[722]

TÍTULO / TITLE: - Impact of cardiovascular calcifications on the detrimental effect of continued smoking on cardiovascular risk in male lung cancer screening participants.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 20;8(6):e66484. doi: 10.1371/journal.pone.0066484. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0066484](#)

AUTORES / AUTHORS: - Jairam PM; de Jong PA; Mali WP; Isgum I; de Koning HJ; van der Aalst C; Oudkerk M; Vliegenthart R; van der Graaf Y

INSTITUCIÓN / INSTITUTION: - Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, Utrecht, The Netherlands ; Department of Radiology, University Medical Center Utrecht, Utrecht, The Netherlands.

RESUMEN / SUMMARY: - BACKGROUND: Current smokers have an increased cardiovascular disease (CVD) risk compared to ex-smokers due to reversible as

well as irreversible effects of smoking. We investigated if current smokers remain to have an increased CVD risk compared to ex-smokers in subjects with a long and intense smoking history. We in addition studied if the effect of smoking continuation on CVD risk is independent of or modified by the presence of cardiovascular calcifications. METHODS: The cohort used comprised a sample of 3559 male lung cancer screening trial participants. We conducted a case-cohort study using all CVD cases and a random sample of 10% (n = 341) from the baseline cohort (subcohort). A weighted Cox proportional hazards model was used to estimate the hazard ratios for current smoking status in relation to CVD events. RESULTS: During a median follow-up of 2.6 years (max. 3.7 years), 263 fatal and non-fatal cardiovascular events (cases) were identified. Age, packyears and cardiovascular calcification adjusted hazard ratio of current smokers compared to former smokers was 1.33 (95% confidence interval 1.00-1.77). In additional analyses that incorporated multiplicative interaction terms, neither coronary nor aortic calcifications modified the association between smoking status and cardiovascular risk (P = 0.08). CONCLUSIONS: Current smokers have an increased CVD risk compared to former smokers even in subjects with a long and intense smoking history. Smoking exerts its hazardous effects on CVD risk by pathways partly independent of cardiovascular calcifications.

[723]

TÍTULO / TITLE: - Mutational analysis of hedgehog signaling pathway genes in human malignant mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 24;8(6):e66685. doi: 10.1371/journal.pone.0066685. Print 2013.

●● [Enlace al texto completo \(gratis o de pago\)](#)

1371/journal.pone.0066685

AUTORES / AUTHORS: - Lim CB; Prele CM; Cheah HM; Cheng YY; Klebe S; Reid G; Watkins DN; Baltic S; Thompson PJ; Mutsaers SE

INSTITUCIÓN / INSTITUTION: - Lung Institute of Western Australia and Centre for Asthma, Allergy and Respiratory Research, Department of Medicine, School of Medicine and Pharmacology, University of Western Australia, Crawley, WA, Australia.

RESUMEN / SUMMARY: - BACKGROUND: The Hedgehog (HH) signaling pathway is critical for embryonic development and adult homeostasis. Recent studies have identified regulatory roles for this pathway in certain cancers with mutations in the HH pathway genes. The extent to which mutations of the HH pathway genes are involved in the pathogenesis of malignant mesothelioma (MMe) is unknown. METHODOLOGY/PRINCIPAL FINDINGS: Real-time PCR analysis of HH pathway genes PTCH1, GLI1 and GLI2 were performed on 7 human MMe cell lines. Exon sequencing of 13 HH pathway genes was also performed in cell lines and human MMe tumors. In silico programs were used to

predict the likelihood that an amino-acid substitution would have a functional effect. GLI1, GLI2 and PTCH1 were highly expressed in MMe cells, indicative of active HH signaling. PTCH1, SMO and SUFU mutations were found in 2 of 11 MMe cell lines examined. A non-synonymous missense SUFU mutation (p.T411M) was identified in LO68 cells. In silico characterization of the SUFU mutant suggested that the p.T411M mutation might alter protein function. However, we were unable to demonstrate any functional effect of this mutation on Gli activity. Deletion of exons of the PTCH1 gene was found in JU77 cells, resulting in loss of one of two extracellular loops implicated in HH ligand binding and the intracellular C-terminal domain. A 3-bp insertion (69_70insCTG) in SMO, predicting an additional leucine residue in the signal peptide segment of SMO protein was also identified in LO68 cells and a MMe tumour. **CONCLUSIONS/SIGNIFICANCE:** We identified the first novel mutations in PTCH1, SUFU and SMO associated with MMe. Although HH pathway mutations are relatively rare in MMe, these data suggest a possible role for dysfunctional HH pathway in the pathogenesis of a subgroup of MMe and help rationalize the exploration of HH pathway inhibitors for MMe therapy.

[724]

TÍTULO / TITLE: - Combination therapy with anti-ErbB3 monoclonal antibodies and EGFR TKIs potently inhibits Non-small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncotarget. 2013 Jul 21.

AUTORES / AUTHORS: - Noto A; De Vitis C; Roscilli G; Fattore L; Malpicci D; Marra E; Luberto L; D'Andrilli A; Coluccia P; Giovagnoli MR; Normanno N; Ruco L; Aurisicchio L; Mancini R; Ciliberto G

INSTITUCIÓN / INSTITUTION: - Dipartimento di Medicina Clinica e Molecolare, Sapienza Università di Roma, Italy.

RESUMEN / SUMMARY: - Personalized therapy of advanced non-small cell lung cancer (NSCLC) has been improved by the introduction of EGFR tyrosine kinase inhibitors (TKIs), gefitinib and erlotinib. EGFR TKIs induce dramatic objective responses and increase survival in patients bearing sensitizing mutations in the EGFR intracytoplasmic tyrosine kinase domain. However, virtually all patients develop resistance, and this is responsible for disease relapse. Hence several efforts are being undertaken to understand the mechanisms of resistance in order to develop combination treatments capable to sensitize resistant cells to EGFR TKIs. Recent studies have suggested that upregulation of another member of the EGFR receptor family, namely ErbB3 is involved in drug resistance, through increased phosphorylation of its intracytoplasmic domain and activation of PI3K/AKT signaling. In this paper we first show, by using a set of malignant pleural effusion derived cell cultures (MPEDCC) from patients with lung adenocarcinoma, that surface ErbB3 expression correlates with increased AKT phosphorylation. Antibodies against ErbB3, namely A3, which we previously demonstrated to induce receptor

internalization and degradation, inhibit growth and induce apoptosis only in cells overexpressing surface ErbB3. Furthermore, combination of anti-ErbB3 antibodies with EGFR TKIs synergistically affect cell proliferation in vitro, cause cell cycle arrest, up-regulate p21 expression and inhibit tumor growth in mouse xenografts. Importantly, potentiation of gefitinib by anti-ErbB3 antibodies occurs both in de novo and in ab initio resistant cells. Anti-ErbB3 mAbs strongly synergize also with the dual EGFR and HER2 inhibitor lapatinib. Our results suggest that combination treatment with EGFR TKI and antibodies against ErbB3 should be a promising approach to pursue in the clinic.

[725]

TÍTULO / TITLE: - ACR Appropriateness Criteria Nonsurgical Treatment for Non-Small-Cell Lung Cancer: Poor Performance Status or Palliative Intent.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Am Coll Radiol. 2013 Jul 25. pii: S1546-1440(13)00316-5. doi: 10.1016/j.jacr.2013.05.031.

●● Enlace al texto completo (gratis o de pago) [1016/j.jacr.2013.05.031](#)

AUTORES / AUTHORS: - Rosenzweig KE; Chang JY; Chetty IJ; Decker RH; Ginsburg ME; Kestin LL; Kong FM; Lally BE; Langer CJ; Movsas B; Videtic GM; Willers H

INSTITUCIÓN / INSTITUTION: - Mount Sinai School of Medicine, New York, New York, USA. Electronic address: kenneth.rosenzweig@m Mountsinai.org.

RESUMEN / SUMMARY: - Radiation therapy plays a potential curative role in the treatment of patients with non-small-cell lung cancer with locoregional disease who are not surgical candidates and a palliative role for patients with metastatic disease. Stereotactic body radiation therapy is a relatively new technique in patients with early-stage non-small-cell lung cancer. A trial from RTOG® reported >97% local control at 3 years. For patients with locally advanced disease, thoracic radiation to a dose of 60 Gy remains the standard of care. Sequential chemotherapy or radiation alone can be used for patients with poor performance status who cannot tolerate more aggressive approaches. Chemotherapy should be used for patients with metastatic disease. Radiation therapy is useful for palliation of symptomatic tumors, and a dose of approximately 30 Gy is commonly used. Endobronchial brachytherapy is useful for patients with symptomatic endobronchial tumors. The ACR Appropriateness Criteria are evidence-based guidelines for specific clinical conditions that are reviewed every 2 years by a multidisciplinary expert panel. The guideline development and review include an extensive analysis of current medical literature from peer-reviewed journals and the application of a well-established consensus methodology (modified Delphi) to rate the appropriateness of imaging and treatment procedures by the panel. In those instances in which evidence is lacking or not definitive, expert opinion may be used to recommend imaging or treatment.

[726]

TÍTULO / TITLE: - Physicians' Knowledge and Practice of Lung Cancer Screening: A Cross-Sectional Survey Comparing General Practitioners, Thoracic Oncologists, and Pulmonologists in France.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 3. pii: S1525-7304(13)00102-2. doi: 10.1016/j.clcc.2013.05.003.

●● Enlace al texto completo (gratis o de pago) 1016/j.clcc.2013.05.003

AUTORES / AUTHORS: - Couraud S; Girard N; Erpeldinger S; Gueyffier F; Devouassoux G; Llorca G; Souquet PJ

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Hospices Civils de Lyon, Lyon Sud University Hospital, Pierre Benite Cedex, France; Claude-Bernard Lyon-1 University, Villeurbanne, France. Electronic address: sebastien.couraud@chu-lyon.fr.

RESUMEN / SUMMARY: - BACKGROUND: Screening for lung cancer by low-dose computed tomography scan (LDCTS) has been demonstrated to reduce lung cancer-specific and overall mortality rates in high-risk individuals. From trial to clinical practice, it is crucial to obtain an accurate level of knowledge of the physicians who will recruit patients for a screening program. The actual current practice and knowledge of practitioners are unknown. This could be critical to develop dedicated continuous medical education programs. MATERIALS AND METHODS: Three groups of French physicians-pulmonologists (PUs), thoracic oncologists (TOs), and general practitioners (GPs)-were surveyed through a dedicated questionnaire on lung cancer screening. RESULTS: A total of 242 physicians answered the questionnaire; 81% of TOs knew that LDCTS showed efficacy for screening lung cancer compared with 52% of PUs and 18% of GPs ($P < .0001$). Approximately one third of physicians recommended lung cancer screening in daily practice at the time of the survey, including 53% of PUs, 34% of TOs, and 20% of GPs ($P < .001$). However, 94% of GPs, 44% of PUs, and 33% of TOs used inappropriate tests, mainly chest radiography. Most GPs proposed screening for all smokers, whereas PUs and TOs reserved screening for heavy smokers ($P = .040$). Most PUs and TOs recommended annual LDCTS (76%), whereas the majority of GPs sent patients for screening tests every 3 to 5 years (93%; $P < .0001$). CONCLUSIONS: These results highlight the interest of physicians for lung cancer screening; meanwhile, our data stress the need for appropriate medical education and recommendations based on available evidence.

[727]

TÍTULO / TITLE: - High-powered percutaneous microwave ablation of stage I medically inoperable non-small cell lung cancer: A preliminary study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Med Imaging Radiat Oncol. 2013 Aug;57(4):466-74. doi: 10.1111/1754-9485.12068. Epub 2013 May 8.

●● Enlace al texto completo (gratis o de pago) 1111/1754-9485.12068

AUTORES / AUTHORS: - Liu H; Steinke K

INSTITUCIÓN / INSTITUTION: - Department of Medical Imaging, Royal Brisbane and Women's Hospital, Brisbane, Queensland, Australia.

RESUMEN / SUMMARY: - **PURPOSE:** To retrospectively evaluate the feasibility and outcome of using high-powered percutaneous microwave ablation (MWA) in treating medically inoperable early stage non-small cell lung cancer. **MATERIALS AND METHODS:** From November 2010 to June 2012, 15 patients underwent CT-guided MWA of 15 tumours in 16 sessions. One patient had a second ablation session for local tumour progression. Each tumour had a diameter of 40 mm or less (median 24 mm). Treatment outcome was evaluated using modified response evaluation criteria in solid tumours criteria based on follow-up contrast-enhanced CT studies and 18-F fluorodeoxyglucose positron emission tomography scans. **RESULTS:** Thirty-three ablation cycles of 15 tumours were performed in 16 sessions (2.1 per session), with a median duration of 2.5 min per ablation. Treatment was completed in all cases with no 30-day mortality. At a median follow-up period of 1 year, local progression was identified following 5/16 (31%) ablation sessions. Eleven out of 16 (69%) of MWAs had shown local treatment response, with 9/11 displaying complete response and 2/11 displaying partial response. Local progression on follow up was predominantly seen in pleural-based tumours that were greater than 30 mm in longest axial diameter (4/5 cases). The main adverse event was a pneumothorax, which occurred in 10/16 (63%) of procedures, but a chest tube was only required in 2/16 (13%) cases. **CONCLUSION:** Percutaneous MWA in early stage non-small cell lung cancer is well tolerated and has promising midterm outcomes.

[728]

TÍTULO / TITLE: - Clinical significance of serum transforming growth factor-beta1 in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Epidemiol. 2013 May 30. pii: S1877-7821(13)00073-8. doi: 10.1016/j.canep.2013.04.013.

●● Enlace al texto completo (gratis o de pago)

1016/j.canep.2013.04.013

AUTORES / AUTHORS: - Hou YL; Chen H; Dong ZH; Xue CJ; Wu YF; Luo HX; Wu YC; Li CH

INSTITUCIÓN / INSTITUTION: - Clinical Laboratories, The First Affiliated Hospital of Chongqing Medical University, Chongqing 400016, China.

RESUMEN / SUMMARY: - Background: Transforming growth factor-beta1 (TGF-beta1) plays a critical role in human cancer development. Present study aimed to explore the clinical significance of serum TGF-beta1 levels in patients with lung cancer and analyze the relationship between TGF-beta1 and existing tumor markers for lung cancer. Methods: Serum was collected from 118

patients with lung cancer and 40 healthy volunteers. Serum TGF-beta1 levels were measured by enzyme-linked immunosorbent assay (ELISA), and the association with various clinical characteristics was analyzed. The diagnostic value of TGF-beta1 was assessed alone and in combination with existing tumor markers for lung cancer. Results: Serum TGF-beta1 levels were significantly higher in patients with lung cancer compared to healthy volunteers [0.6x10⁵ (0.4x10⁵, 0.9x10⁵)pg/ml vs 0.5x10⁵ (0.3x10⁵, 0.7x10⁵)pg/ml, P=0.040]. Although there was a positive correlation between serum TGF-beta1 levels and advanced stages, the significant difference was not found between early stages and advanced stages (P=0.116). The ability of serum TGF-beta1 to discriminate lung cancer at a cutoff value of 79,168pg/ml exhibited sensitivity of 30.6% and specificity of 97.5%. Serum TGF-beta1 levels were correlated to cytokeratin fragment 21-1 (CYFRA21-1; R=0.308, P=0.020) and neuron-specific enolase (NSE; R=0.558, P=0.003). The diagnostic accuracy rates for the existing lung-tumor markers, as SCC, CYFRA21-1, and NSE, were increased from 20.0%, 34.6%, and 45.9% to 48.9%, 51.7%, and 54.5%, respectively by the inclusion of serum TGF-beta1 levels. Conclusion: Quantification of serum TGF-beta1 levels by ELISA may provide a novel complementary tool for the clinical diagnosis of lung cancer.

[729]

TÍTULO / TITLE: - Micro-CT molecular imaging of tumor angiogenesis using a magnetite nano-cluster probe.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Biomed Nanotechnol. 2013 Jun;9(6):1041-9.

AUTORES / AUTHORS: - Liu P; Li J; Zhang C; Xu LX

INSTITUCIÓN / INSTITUTION: - Med-X Research Institute, Shanghai Jiao Tong University, Shanghai 200030, China.

RESUMEN / SUMMARY: - Due to its high resolution, micro-CT is desirable for molecular imaging of tumor angiogenesis. However, the sensitivity of micro-CT to contrast agents is relatively low. Therefore, the purpose of this study is to develop high micro-CT sensitive molecular imaging probes for direct visualization and dynamic monitoring of tumor angiogenesis. To this end, Arg-Gly-Asp (RGD) peptides conjugated magnetite nano clusters (RGD-MNCs) were developed by assembling individual magnetite nano particles into clusters with amphiphilic (maleimide) methoxypoly(ethylene glycol)-b-poly(lactic acid) ((Mal)mPEG-PLA) copolymer and subsequently encoding RGD peptides onto the clusters for specific targeting alpha(v)beta3 integrin. The hydrodynamic size of RGD-MNCs was about 85 nm. To test its specificity, alpha(v)beta3 positive cells (H1299) were incubated with magnetite nano clusters (MNCs), RGD-MNCs or RGD-MNCs competition with free RGD peptides. Prussian Blue staining and inductively coupled plasma optical emission spectrometer (ICP-OES) measurements indicated that the cell uptake of RGD-MNCs was significantly more than that of MNCs, which could be inhibited by free RGD

peptides. For detection of tumor angiogenesis, mice bearing H1299 tumors were injected intravenously with RGD-MNCs at the dose of 400 micro mol Fe/kg. Tumor angiogenic hot spots as well as individual angiogenic vessels could be clearly manifested by micro-CT imaging 12 h post injection, which was dynamically monitored with the extension of probe circulation time. Subsequent histological studies of tumor tissues verified that RGD-MNCs registered tumor angiogenic vessels. Our study demonstrated that RGD-MNC probes fabricated in this study could be used to effectively target alpha(v)beta3 integrin. Using high resolution micro-CT in combination with the probes, tumor angiogenesis could be studied dynamically.

[730]

TÍTULO / TITLE: - Crizotinib in the Treatment of Non-Small-Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jun 19. pii: S1525-7304(13)00073-9. doi: 10.1016/j.clcc.2013.04.006.

●● Enlace al texto completo (gratis o de pago) 1016/j.clcc.2013.04.006

AUTORES / AUTHORS: - Rothschild SI; Gautschi O

INSTITUCIÓN / INSTITUTION: - Department Internal Medicine, Medical Oncology, University Hospital Basel, Basel, Switzerland. Electronic address: sacha.rothschild@usb.ch.

RESUMEN / SUMMARY: - An anaplastic lymphoma kinase (ALK) translocation giving rise to activated ALK tyrosine kinase is present in approximately 5% of non-small-cell lung cancers (NSCLCs). Crizotinib is an oral tyrosine kinase inhibitor targeting ALK, met proto-oncogene, and c-ros oncogene 1 (ROS1). It was recently approved in several countries for the treatment of patients with advanced, ALK-rearranged NSCLC. In 2012, results from the first phase III trial showing superiority of crizotinib compared with standard chemotherapy in second-line treatment of ALK-positive NSCLC were presented. Furthermore, crizotinib was recently shown to be active in ROS1-rearranged NSCLC. Here, we give an overview of the molecular pathogenesis of ALK-rearranged NSCLC, the pharmacokinetic and pharmacodynamic properties of crizotinib, and clinical trials of crizotinib for ALK-rearranged NSCLC.

[731]

TÍTULO / TITLE: - Customised, Individualised Treatment of Metastatic Non-Small-Cell Lung Carcinoma (NSCLC).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Sultan Qaboos Univ Med J. 2013 May;13(2):202-17. Epub 2013 May 9.

AUTORES / AUTHORS: - Furrakh M; Al-Moundhri M; Zahid KF; Kumar S; Burney I

INSTITUCIÓN / INSTITUTION: - Department of Medicine, Sultan Qaboos University Hospital, Muscat, Oman;

RESUMEN / SUMMARY: - A series of phase II and randomised phase III trials in Asia and Europe have confirmed recently that advanced stage non-small-cell lung carcinoma patients with adenocarcinoma subtypes harbouring specific mutations when subjected to targeted therapy experience equivalent survival outcomes as those treated with chemotherapy and are spared from its side effects. The concept of chemotherapy for all is fading, and therapy optimisation has emerged as a paradigm shift in treatment. This article briefly describes cellular mechanisms involved in lung carcinogenesis which provide a molecular basis for targeted therapy. Advances in molecular biology have improved our understanding of mechanisms involved in primary or secondary drug resistance. Evolving biomarkers of prognostic and predictive importance, and the impact of translational research on outcomes are also covered. A marker is considered prognostic if it predicts the outcome, regardless of the treatment, and predictive if it predicts the outcome of a specific therapy.

[732]

TÍTULO / TITLE: - EGFR inhibitors as the first-line systemic treatment for advanced non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Future Oncol. 2013 Jul;9(7):991-1003. doi: 10.2217/fon.13.56.

●● Enlace al texto completo (gratis o de pago) [2217/fon.13.56](#)

AUTORES / AUTHORS: - Kao HF; Lin CC; Yang JC

INSTITUCIÓN / INSTITUTION: - Department of Oncology, National Taiwan University Hospital Yun-Lin Branch, Yun-Lin, Taiwan. chihyang@ntu.edu.tw.

RESUMEN / SUMMARY: - Drugs that target the EGFR have a major impact on the treatment of advanced non-small-cell lung cancer (NSCLC). EGFR mutations in NSCLC are associated with a dramatic and sustained response to EGFR tyrosine kinase inhibitors (TKIs). This review summarizes the results of randomized trials using EGFR TKIs or EGFR monoclonal antibodies with chemotherapy in the first-line setting, and discusses several unresolved issues regarding the use of the EGFR TKIs as the first-line therapy in advanced NSCLC.

[733]

TÍTULO / TITLE: - Detection and minimally invasive treatment of early squamous lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ther Adv Med Oncol. 2013 Jul;5(4):235-48. doi: 10.1177/1758834013482345.

●● Enlace al texto completo (gratis o de pago)

[1177_1758834013482345](#) [pii]

●● Enlace al texto completo (gratis o de pago)

[1177/1758834013482345](#)

AUTORES / AUTHORS: - Daniels JM; Sutedja TG

INSTITUCIÓN / INSTITUTION: - Department of Pulmonary Diseases, Z 4^a48, VU University Medical Center, De Boelelaan 1117, 1081HV Amsterdam, The Netherlands.

RESUMEN / SUMMARY: - Non-small cell lung cancer (NSCLC) is the most common cause of cancer deaths worldwide. The majority of patients presenting with NSCLC have advanced disease, which precludes curative treatment. Early detection and treatment might result in the identification of more patients with early central lung cancer and improve survival. In addition, the study of early lung cancer improves understanding of lung carcinogenesis and might also reveal new treatment targets for advanced lung cancer. Bronchoscopic investigation of the central airways can reveal both early central lung cancer in situ (stage 0) and other preinvasive lesions such as dysplasia. In the current review we discuss the detection of early squamous lung cancer, the natural history of preinvasive lesions and whether biomarkers can be used to predict progression to cancer. Finally we will review the staging and management of preinvasive lung cancer lesions and the different therapeutic modalities that are available.

[734]

TÍTULO / TITLE: - Preliminary study of CT in combination with MRI perfusion imaging to assess hemodynamic changes during angiogenesis in a rabbit model of lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Onco Targets Ther. 2013 Jun 17;6:685-92. doi: 10.2147/OTT.S45403. Print 2013.

●● Enlace al texto completo (gratis o de pago) [2147/OTT.S45403](#)

AUTORES / AUTHORS: - Zhang Q; Shi B; Liu Z; Zhang M; Zhang W

INSTITUCIÓN / INSTITUTION: - Radiology Department, Baotou Cancer Hospital, Inner Mongolia Autonomous Region, Beijing, People's Republic of China.

RESUMEN / SUMMARY: - BACKGROUND: This study used CT (computed tomography) and magnetic resonance imaging (MRI) to identify correlations between perfusion parameters for squamous cell lung carcinoma and tumor angiogenesis in a rabbit model of VX2 lung cancer. METHODS: VX2 tumors were implanted in the lungs of 35 New Zealand White rabbits. CT and MRI perfusion scanning were performed on days 14, 17, 21, 25, and 28 after tumor implantation. CT perfusion parameters were perfusion, peak enhanced increment, transit time peak, and blood volume, and MRI perfusion parameters were wash in rate, wash out rate, maximum enhancement rate, and transit time peak. CT and MRI perfusion parameters were obtained at the tumor rim, in the tumor tissue, and in the muscle tissue surrounding the tumor. RESULTS: On CT perfusion imaging, t values for perfusion, peak enhanced increment, and blood volume (tumor rim versus muscle) were 16.31, 11.79, and 5.21, respectively (P < 0.01); t values for perfusion, peak enhanced increment, and

blood volume (tumor versus muscle) were 9.87, 4.09, and 5.35, respectively ($P < 0.01$); and t values for transit time peak were 1.52 (tumor rim versus muscle) and 1.29 (tumor versus muscle), respectively ($P > 0.05$). On MRI perfusion imaging, t values for wash in rate, wash out rate, and maximum enhancement rate (tumor rim versus muscle) were 18.14, 8.79, and 6.02, respectively ($P < 0.01$); t values for muscle wash in rate, wash out rate, and maximum enhancement rate (tumor versus muscle) were 9.45, 8.23, and 4.21, respectively ($P < 0.01$); and t values for transit time peak were 1.21 (tumor rim versus muscle) and 1.05 (tumor versus muscle), respectively ($P > 0.05$). CONCLUSION: A combination of CT and MRI perfusion imaging demonstrated hemodynamic changes in a rabbit model of VX2 lung cancer, and provides a theoretical foundation for treatment of human squamous cell lung carcinoma.

[735]

TÍTULO / TITLE: - Contributory Role of Five Common Polymorphisms of RAGE and APE1 Genes in Lung Cancer among Han Chinese.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jul 11;8(7):e69018. doi: 10.1371/journal.pone.0069018. Print 2013.

●● Enlace al texto completo (gratis o de pago)

1371/journal.pone.0069018

AUTORES / AUTHORS: - Pan H; Niu W; He L; Wang B; Cao J; Zhao F; Liu Y; Li S; Wu H

INSTITUCIÓN / INSTITUTION: - School of Life Science and Biotechnology, Dalian University of Technology, Dalian, Liaoning, China ; Basic Medical Science College, Qiqihar Medical University, Qiqihar, Heilongjiang, China.

RESUMEN / SUMMARY: - BACKGROUND: Lung cancer is the leading cause of cancer mortality in China. Given the ubiquitous nature of gene-to-gene interaction in lung carcinogenesis, we sought to evaluate five common polymorphisms from advanced glycosylation end product-specific receptor (RAGE) and apurinic/aprimidinic endonuclease 1 (APE1) genes in association with lung cancer among Han Chinese. METHODS AND RESULTS: 819 patients with lung cancer and 803 cancer-free controls were recruited from Qiqihar city. Genotypes of five examined polymorphisms (RAGE gene: rs1800625, rs1800624, rs2070600; APE1 gene: rs1760944, rs1130409) were determined by ligase detection reaction method. Data were analyzed by R software and multifactor dimensionality reduction (MDR). Hardy-Weinberg equilibrium was satisfied for all five polymorphisms. Overall differences in the genotype and allele distributions were significant for rs1800625 ($P_{\text{genotype}} < 0.0005$; $P_{\text{allele}} < 0.0005$), rs2070600 ($P_{\text{genotype}} = 0.005$; $P_{\text{allele}} = 0.004$) and rs1130409 ($P_{\text{genotype}} = 0.009$; $P_{\text{allele}} = 0.004$) polymorphisms. Haplotype C-A-A (alleles in order of rs1800625, rs1800624 and rs2070600) of RAGE gene was overrepresented in patients, and conferred a 2.1-fold increased risk of lung cancer (95% confidence interval: 1.52-2.91), independent

of confounding factors. Further application of MDR method to five examined polymorphisms identified the overall best interaction model including rs2070600 and rs1130409 polymorphisms. This model had a maximal testing accuracy of 64.63% and a maximal cross-validation consistency of 9 out of 10 at the significant level of 0.006. CONCLUSIONS: Our findings demonstrated a potential interactive contribution of RAGE and APE1 genes to the pathogenesis of lung cancer among Han Chinese. Further studies are warranted to confirm or refute these findings.

[736]

TÍTULO / TITLE: - Principles of biopsy in suspected lung cancer: priority still based on invasion in the era of targeted therapy?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Dis. 2013 Jun;5(3):E93-7. doi: 10.3978/j.issn.2072-1439.2013.04.17.

●● Enlace al texto completo (gratis o de pago) [3978/j.issn.2072-1439.2013.04.17](#)

AUTORES / AUTHORS: - Chen HJ; Yang JJ; Xu CR; Lei YY; Luo DL; Yan HH; Wu YL

INSTITUCIÓN / INSTITUTION: - Guangdong Lung Cancer Institute, Guangdong General Hospital & Guangdong Academy of Medical Sciences, Guangzhou 510080, P. R. China;

RESUMEN / SUMMARY: - There are multiple ways to obtain a biopsy for patients with suspected lung cancer under clinical circumstances. Diagnostic goals described previously in literature should be achieved preferably by using the safest, least invasive, and least costly biopsies. Insight into molecular profile and era of targeted therapy challenged the previous concepts on tumor biopsy. Distinct principles of biopsy should be revisited to adopt the advances in clinical research. A 53-year-old gentleman with 10-year history of dust exposure consulted to our hospital because of bloody sputum. PET/CT scanning revealed a 3.2-centimeter mass with an increased (18)F-FDG uptake in right upper lung lobe, metabolically active lesions in multiple stations of mediastinal or bilateral hilar lymph nodes and an intramuscular nodule in the left gluteus maximus. He underwent transthoracic core needle biopsy of the lung mass, resection of intramuscular nodule, bronchoscopy and right upper lung lobectomy in sequence. The final diagnosis was considered as systemic lipid deposition. Principles of biopsy in suspected lung cancer should be prioritized in sequence based on weight in clinical management, acquisition of tissue, invasion, efficiency and cost.

[737]

TÍTULO / TITLE: - Tumor suppressor gene RBM5 delivered by attenuated Salmonella inhibits lung adenocarcinoma through diverse apoptotic signaling pathways.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - World J Surg Oncol. 2013 May 31;11:123. doi: 10.1186/1477-7819-11-123.

●● Enlace al texto completo (gratis o de pago) [1186/1477-7819-11-123](#)

AUTORES / AUTHORS: - Shao C; Yang B; Zhao L; Wang S; Zhang J; Wang K

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Second Affiliated Hospital of Jilin University, 18 Ziqiang Street, Changchun, Jilin 130041, China.

RESUMEN / SUMMARY: - BACKGROUND: RBM5 (RNA-binding motif protein 5, also named H37/LUCA-15) gene from chromosome 3p21.3 has been demonstrated to be a tumor suppressor. Current researches in vitro confirm that RBM5 can suppress the growth of lung adenocarcinoma cells by inducing apoptosis. There is still no effective model in vivo, however, that thoroughly investigates the effect and molecular mechanism of RBM5 on lung adenocarcinoma. METHOD: We established the transplanted tumor model on BALB/c nude mice using the A549 cell line. The mice were treated with the recombinant plasmids carried by attenuated Salmonella to induce the overexpression of RBM5 in tumor tissues. RBM5 overexpression was confirmed by immunohistochemistry staining. H&E staining was performed to observe the histological performance on plasmids-treated A549 xenografts. Apoptosis was assessed by TUNEL staining with a TUNEL detection kit. Apoptosis-regulated genes were detected by Western blot. RESULTS: We successfully established the lung adenocarcinoma animal model in vivo. The growth of tumor xenografts was significantly retarded on the mice treated with pcDNA3.1-RBM5 carried by attenuated Salmonella compared to that on mice treated with pcDNA3.1. Overexpression of RBM5 enhanced the apoptosis in tumor xenografts. Furthermore, the expression of Bcl-2 protein was decreased significantly, while the expression of BAX, TNF-alpha, cleaved caspase-3, cleaved caspase-8, cleaved caspase-9 and cleaved PARP proteins was significantly increased in the pcDNA3.1-RBM5-treated mice as compared to that in the control mice. CONCLUSIONS: In this study, we established a novel animal model to determine RBM5 function in vivo, and concluded that RBM5 inhibited tumor growth in mice by inducing apoptosis. The study suggests that although RBM5's involvement in the death receptor-mediated apoptotic pathway is still to be investigated, RBM5-mediated growth suppression, at least in part, employs regulation of the mitochondrial apoptotic pathways.

[738]

TÍTULO / TITLE: - Epigenetic therapy in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Front Oncol. 2013 May 30;3:135. doi: 10.3389/fonc.2013.00135. Print 2013.

●● Enlace al texto completo (gratis o de pago) [3389/fonc.2013.00135](#)

AUTORES / AUTHORS: - Liu SV; Fabbri M; Gitlitz BJ; Laird-Offringa IA

INSTITUCIÓN / INSTITUTION: - Norris Comprehensive Cancer Center, Keck School of Medicine, University of Southern California , Los Angeles, CA , USA.

RESUMEN / SUMMARY: - Epigenetic deregulation of gene function has been strongly implicated in carcinogenesis and is one of the mechanisms contributing to the development of lung cancer. The inherent reversibility of epigenetic alterations makes them viable therapeutic targets. Here, we review the therapeutic implications of epigenetic changes in lung cancer, and recent advances in therapeutic strategies targeting DNA methylation and histone acetylation.

[739]

TÍTULO / TITLE: - Epigenetic Therapy in Lung Cancer - Role of microRNAs.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Front Oncol. 2013 Jun 19;3:158. doi: 10.3389/fonc.2013.00158. Print 2013.

●● Enlace al texto completo (gratis o de pago) [3389/fonc.2013.00158](#)

AUTORES / AUTHORS: - Rothschild SI

INSTITUCIÓN / INSTITUTION: - Department Internal Medicine, Medical Oncology, University Hospital Basel , Basel , Switzerland.

RESUMEN / SUMMARY: - Lung cancer is the leading cause of cancer deaths worldwide. microRNAs (miRNAs) are a class of small non-coding RNA species that have been implicated in the control of many fundamental cellular and physiological processes such as cellular differentiation, proliferation, apoptosis, and stem cell maintenance. Some miRNAs have been categorized as “oncomiRs” as opposed to “tumor suppressor miRs.” This review focuses on the role of miRNAs in the lung cancer carcinogenesis and their potential as diagnostic, prognostic, or predictive markers.

PTPTPTP - Journal Article

[740]

TÍTULO / TITLE: - Systemic therapy for small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Natl Compr Canc Netw. 2013 Jul 1;11(7):780-7.

AUTORES / AUTHORS: - Levy B; Saxena A; Schneider BJ

INSTITUCIÓN / INSTITUTION: - From the aDivision of Hematology/Oncology, Department of Internal Medicine, Beth Israel Comprehensive Cancer Center, and the bDivision of Hematology/Oncology, Department of Internal Medicine, Weill Cornell Medical College, New York, New York.

RESUMEN / SUMMARY: - Small cell lung cancer is an aggressive tumor characterized by genetic complexity, rapid doubling time, and early development of disseminated disease. Unfortunately, few chemotherapeutic advances have been made in the treatment of extensive-stage disease, and cisplatin/etoposide has remained the standard of care for more than 30 years. Other regimens with comparable efficacy include cisplatin/irinotecan and

carboplatin/etoposide. Each of these combinations is associated with a different toxicity profile that must be considered when selecting an initial regimen. Several strategies, including maintenance chemotherapy, 3-drug combinations, alternating combination chemotherapy regimens, and high-dose chemotherapy, have consistently failed to demonstrate improvements in survival when compared with 4 to 6 cycles of platinum doublets. Several options are available for patients who experience progression during or relapse after induction therapy, although topotecan is the only FDA-approved agent for second-line treatment. Recently, scientific efforts have identified potentially actionable genetic alterations in small cell tumors that may lead to the development of effective, targeted therapies.

[741]

TÍTULO / TITLE: - EphB4 as a therapeutic target in mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - BMC Cancer. 2013 May 30;13:269. doi: 10.1186/1471-2407-13-269.

●● Enlace al texto completo (gratis o de pago) [1186/1471-2407-13-269](#)

AUTORES / AUTHORS: - Liu R; Ferguson BD; Zhou Y; Naga K; Salgia R; Gill PS; Krasnoperov V

INSTITUCIÓN / INSTITUTION: - School of Medicine, University of Southern California, Los Angeles, CA 90033, USA. parkashg@usc.edu

RESUMEN / SUMMARY: - BACKGROUND: Malignant pleural mesothelioma (MPM) often develops decades following exposure to asbestos. Current best therapy produces a response in only half of patients, and the median survival with this therapy remains under a year. A search for novel targets and therapeutics is underway, and recently identified targets include VEGF, Notch, and EphB4-Ephrin-B2. Each of these targets has dual activity, promoting tumor cell growth as well as tumor angiogenesis. METHODS: We investigated EphB4 expression in 39 human mesothelioma tissues by immunohistochemistry. Xenograft tumors established with human mesothelioma cells were treated with an EphB4 inhibitor (monomeric soluble EphB4 fused to human serum albumin, or sEphB4-HSA). The combinatorial effect of sEphB4-HSA and biologic agent was also studied. RESULTS: EphB4 was overexpressed in 72% of mesothelioma tissues evaluated, with 85% of epithelioid and 38% of sarcomatoid subtypes demonstrating overexpression. The EphB4 inhibitor sEphB4-HSA was highly active as a single agent to inhibit tumor growth, accompanied by tumor cell apoptosis and inhibition of PI3K and Src signaling. Combination of sEphB4-HSA and the anti-VEGF antibody (Bevacizumab) was superior to each agent alone and led to complete tumor regression. CONCLUSION: EphB4 is a potential therapeutic target in mesothelioma. Clinical investigation of sEphB4-HSA as a single agent and in combination with VEGF inhibitors is warranted.

[742]

TÍTULO / TITLE: - Targeted therapies in non-small cell lung carcinoma: what have we achieved so far?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ther Adv Med Oncol. 2013 Jul;5(4):249-70. doi: 10.1177/1758834013492001.

●● Enlace al texto completo (gratis o de pago)

[1177_1758834013492001](#) [pii]

●● Enlace al texto completo (gratis o de pago)

[1177/1758834013492001](#)

AUTORES / AUTHORS: - Farhat FS; Houhou W

INSTITUCIÓN / INSTITUTION: - Hematology-Oncology Division (Head), Hammoud Hospital University Medical Center, Ghassan Hammoud Street, 652, Saida, Lebanon.

RESUMEN / SUMMARY: - The search for innovative therapeutic agents in non-small cell lung cancer (NSCLC) has witnessed a swift evolution. The number of targeted drugs that can improve patient outcomes with an acceptable safety profile is steadily increasing. In this review, we highlight current drugs that have already been approved or are under evaluation for the treatment of patients with NSCLC, either in monotherapy or combined therapy for both the first- and second-line settings. Experience with drugs targeting the vascular endothelial growth factor and its receptor, as well as the epidermal growth factor receptor is summarized. Moreover, we provide an overview of more novel targets in NSCLC and initial experience with the respective therapeutic agents.

[743]

TÍTULO / TITLE: - Combining antiangiogenic therapy with adoptive cell immunotherapy exerts better antitumor effects in non-small cell lung cancer models.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 14;8(6):e65757. doi: 10.1371/journal.pone.0065757. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0065757](#)

AUTORES / AUTHORS: - Shi S; Wang R; Chen Y; Song H; Chen L; Huang G

INSTITUCIÓN / INSTITUTION: - Medical Oncology Department of Jinling Hospital, Medical school of Nanjing University, Nanjing, People's Republic of China.

RESUMEN / SUMMARY: - INTRODUCTION: Cytokine-induced killer cells (CIK cells) are a heterogeneous subset of ex-vivo expanded T lymphocytes which are characterized with a MHC-unrestricted tumor-killing activity and a mixed T-NK phenotype. Adoptive CIK cells transfer, one of the adoptive immunotherapy represents a promising nontoxic anticancer therapy. However, in clinical studies, the therapeutic activity of adoptive CIK cells transfer is not as efficient as anticipated. Possible explanations are that abnormal tumor vasculature and

hypoxic tumor microenvironment could impede the infiltration and efficacy of lymphocytes. We hypothesized that antiangiogenesis therapy could improve the antitumor activity of CIK cells by normalizing tumor vasculature and modulating hypoxic tumor microenvironment. **METHODS:** We combined recombinant human endostatin (rh-endostatin) and CIK cells in the treatment of lung carcinoma murine models. Intravital microscopy, dynamic contrast enhanced magnetic resonance imaging, immunohistochemistry, and flow cytometry were used to investigate the tumor vasculature and hypoxic microenvironment as well as the infiltration of immune cells. **RESULTS:** Our results indicated that rh-endostatin synergized with adoptive CIK cells transfer to inhibit the growth of lung carcinoma. We found that rh-endostatin normalized tumor vasculature and reduced hypoxic area in the tumor microenvironment. Hypoxia significantly inhibited the proliferation, cytotoxicity and migration of CIK cells in vitro and impeded the homing of CIK cells into tumor parenchyma ex vivo. Furthermore, we found that treatment with rh-endostatin significantly increased the homing of CIK cells and decreased the accumulation of suppressive immune cells in the tumor tissue. In addition, combination therapy produced higher level of tumor-infiltration lymphocytes compared with other treatments. **CONCLUSIONS:** Our results demonstrate that rh-endostatin improves the therapeutic effect of adoptive CIK cells therapy against lung carcinomas and unmask the mechanisms of the synergistic antitumor efficacy, providing a new rationale for combining antiangiogenesis therapy with immunotherapy in the treatment of lung cancer.

[744]

TÍTULO / TITLE: - Variation in drug sensitivity of malignant mesothelioma cell lines with substantial effects of selenite and bortezomib, highlights need for individualized therapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 20;8(6):e65903. doi: 10.1371/journal.pone.0065903. Print 2013.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1371/journal.pone.0065903](#)

AUTORES / AUTHORS: - Szulkin A; Nilsson G; Mundt F; Wasik AM; Souri P; Hjerpe A; Dobra K

INSTITUCIÓN / INSTITUTION: - Karolinska Institutet, Department of Laboratory Medicine, Division of Pathology, Stockholm, Sweden.

RESUMEN / SUMMARY: - **BACKGROUND:** Malignant mesothelioma cells have an epithelioid or sarcomatoid morphology, both of which may be present in the same tumor. The sarcomatoid phenotype is associated with worse prognosis and heterogeneity of mesothelioma cells may contribute to therapy resistance, which is often seen in mesothelioma. This study aimed to investigate differences in sensitivity between mesothelioma cell lines to anti-cancer drugs. We studied two novel drugs, selenite and bortezomib and compared their effect

to four conventional drugs. We also investigated the immunoreactivity of potential predictive markers for drug sensitivity; Pgp, MRP-1, ERCC1, RRM1, TS, xCT and proteasome 20S subunit. **MATERIALS AND METHODS:** We treated six mesothelioma cell lines with selenite, bortezomib, carboplatin, pemetrexed, doxorubicin or gemcitabine as single agents and in combinations. Viability was measured after 24 and 48 hours. Immunocytochemistry was used to detect predictive markers. **RESULTS:** As a single agent, selenite was effective on four out of six cell lines, and in combination with bortezomib yielded the greatest response in the studied mesothelioma cell lines. Cells with an epithelioid phenotype were generally more sensitive to the different drugs than the sarcomatoid cells. Extensive S-phase arrest was seen in pemetrexed-sensitive cell lines. MRP-1 predicted sensitivity of cell lines to treatment with carboplatin and xCT predicted pemetrexed effect. **CONCLUSIONS:** The observed heterogeneity in sensitivity of mesothelioma cell lines with different morphology highlights the need for more individualized therapy, requiring development of methods to predict drug sensitivity of individual tumors. Selenite and bortezomib showed a superior effect compared to conventional drugs, motivating clinical testing of these agents as future treatment regime components for patients with malignant mesothelioma.

[745]

TÍTULO / TITLE: - Glucose transporter 1 protein detected by enzyme-linked immunosorbent assay and immunocytochemistry: A useful diagnostic tool for malignant pleural effusions.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Cytopathol. 2013 Jul 16. doi: 10.1002/cncy.21324.

●● Enlace al texto completo (gratis o de pago) [1002/cncy.21324](#)

AUTORES / AUTHORS: - Liao ND; Chiang TA; Lee WY

INSTITUCIÓN / INSTITUTION: - Department of Cytopathology, Chi Mei Medical Center, Tainan, Taiwan.

RESUMEN / SUMMARY: - **BACKGROUND:** Glucose transporter 1 (GLUT1) is a hallmark of metabolic change in cancer cells. The objective of this study was to determine the role of GLUT1 protein in diagnosing malignant pleural effusions by enzyme-linked immunosorbent assay (ELISA) and immunocytochemistry. **METHODS:** In total, 82 pleural effusions were collected and classified as benign (n = 42), atypical (n = 8), or malignant (n = 32) based on cytologic diagnosis and etiology. GLUT1 protein levels in effusions were measured by ELISA. GLUT1 expression also was determined by immunocytochemistry using cell blocks. **RESULTS:** GLUT1 levels were significantly higher in the malignant group compared with the benign group. Receiver operating characteristic curve analysis of benign and malignant pleural effusions for GLUT1 yielded an area under the curve of 0.77, with a value of 1355.87 pg/dL as the optimal threshold for distinguishing benign from malignant effusions. With the ELISA method, the

sensitivity, specificity, and accuracy were 78.1%, 69%, and 73%, respectively. Malignant effusion cell blocks were positive for GLUT1 expression in 84.4% of cases with 100% specificity and 93.2% accuracy. With the combination of high GLUT1 protein levels (>10,000 pg/dL) and immunocytochemistry to detect malignant pleural effusions, the sensitivity and accuracy increased to 93.8% and 94.6%, respectively. The GLUT1 level measured by ELISA and the GLUT1 expression detected by immunocytochemistry were positively correlated. In atypical effusions, 3 cases (37.5%) had GLUT1 levels higher than the cutoff value. CONCLUSIONS: The detection of GLUT1 protein by ELISA and immunocytochemistry may have utility in the diagnosis of malignant pleural effusions. Cancer (Cancer Cytopathol) 2013. © 2013 American Cancer Society.

[746]

TÍTULO / TITLE: - The Differences of Biological Behavior Based on the Clinicopathological Data Between Resectable Large-Cell Neuroendocrine Carcinoma and Small-Cell Lung Carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jun 20. pii: S1525-7304(13)00070-3. doi: 10.1016/j.clcc.2013.04.003.

●● Enlace al texto completo (gratis o de pago) 1016/j.clcc.2013.04.003

AUTORES / AUTHORS: - Kinoshita T; Yoshida J; Ishii G; Aokage K; Hishida T; Nagai K

INSTITUCIÓN / INSTITUTION: - Division of Thoracic Surgery, National Cancer Center Hospital East, Kashiwa, Chiba, Japan; Pathology Division, Research Center for Innovative Oncology, National Cancer Center Hospital East, Kashiwa, Chiba, Japan. Electronic address: t.kinoshita@a7.keio.jp.

RESUMEN / SUMMARY: - INTRODUCTION: Large cell neuroendocrine carcinoma of the lung and SCLC are collectively classified as high-grade NECs. However, there have been few reports focusing on the differences of clinicopathological prognostic factors between resectable LCNEC and SCLC. PATIENTS AND METHODS: We reviewed the clinical data of 140 patients who underwent complete resection of high grade NEC in our institute and analyzed the clinicopathological features in relation to their survival. RESULTS: There were no statistically significant differences in overall and recurrence-free survival between pure and combined subtypes in either LCNEC or SCLC. In LCNEC, larger tumor diameter (P = .01), nodal metastasis (P < .01), lymphatic permeation (P < .01), and vascular invasion (P = .01) were unfavorable prognostic factors. However, in SCLC, tumor diameter and vascular invasion were not prognostic factors, but nodal metastasis (P < .01) and lymphatic permeation (P = .03) were strongly correlated with poor prognosis. CONCLUSION: There were no apparent differences in biological behavior between pure and combined subtypes in either LCNEC or SCLC. Lymphatic involvement was an important unfavorable prognostic factor in SCLC, whereas

tumor diameter, vascular invasion, and lymphatic involvement had a poor prognostic effect in LCNEC.

[747]

TÍTULO / TITLE: - The impact of both platinum-based chemotherapy and EGFR-TKIs on overall survival of advanced non—small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chin J Cancer. 2013 Jul 2. doi: 10.5732/cjc.012.10274.

●● Enlace al texto completo (gratis o de pago) [5732/cjc.012.10274](#)

AUTORES / AUTHORS: - Zhang JW; Zhao YY; Guo Y; Xue C; Hu ZH; Huang Y; Zhao HY; Zhang J; Wu X; Fang WF; Ma YX; Zhang L

INSTITUCIÓN / INSTITUTION: - State Key laboratory of Oncology in South China, Guangzhou, Guangdong 510060, P. R. China; Department of Medical Oncology, Sun Yat-sen University Cancer Center, Guangzhou, Guangdong 510060, P. R. China. zhangli@sysucc.org.cn.

RESUMEN / SUMMARY: - Both platinum-based doublet chemotherapy (PBC) and epidermal growth factor receptor tyrosine kinase inhibitors (EGFR-TKIs) prolong the survival of patients with advanced non-small cell lung cancer (NSCLC). In early studies, most patients received PBC as first-line treatment, but not all patients could afford EGFR-TKIs as second-line treatment. To understand the impact of PBC and EGFR-TKIs on NSCLC prognosis, we evaluated the correlation between the receipt of both regimens and overall survival. Using MEDLINE and EMBASE, we identified prospective, randomized, controlled phase III clinical trials in advanced NSCLC that met the inclusion criteria: in general population with advanced NSCLC, the percentage of patients receiving both PBC and EGFR-TKIs was available in the trial and overall survival (OS) was reported. After collecting data from the selected trials, we correlated the percentage of patients receiving both PBC and EGFR-TKIs with the reported OS, using a weighted analysis. Fifteen phase III clinical trials—involving 11,456 adult patients in 32 arms—were included in the analysis, including six trials in Asian populations and nine in non-Asian (predominantly Caucasian) populations. The overall survival was positively correlated with the percentage of patients receiving both PBC and EGFR-TKIs ($r = 0.797$, $P < 0.001$). The correlation was obvious in the trials in Asian populations ($r = 0.936$, $P < 0.001$) but was not statistically significant in the trials in predominantly Caucasian populations ($r = 0.116$, $P = 0.588$). These results suggest that treatment with PBC and EGFR-TKIs may provide a survival benefit to patients with advanced NSCLC, highlighting the importance of having both modalities available for therapy.

[748]

TÍTULO / TITLE: - Inhibition of lung tumorigenesis by metformin is associated with decreased plasma igf-I and diminished receptor tyrosine kinase signaling.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Prev Res (Phila). 2013 Aug;6(8):801-10. doi: 10.1158/1940-6207.CAPR-13-0058-T. Epub 2013 Jun 14.

●● Enlace al texto completo (gratis o de pago) [1158/1940-6207.CAPR-13-0058-T](https://doi.org/10.1158/1940-6207.CAPR-13-0058-T)

AUTORES / AUTHORS: - Quinn BJ; Dallos M; Kitagawa H; Kunnumakkara AB; Memmott RM; Hollander MC; Gills JJ; Dennis PA

INSTITUCIÓN / INSTITUTION: - Department of Oncology, Johns Hopkins Bayview Medical Center, 4940 Eastern Ave., A113 Baltimore, MD 21224.

pdennis@jhmi.edu.

RESUMEN / SUMMARY: - Metformin is the most commonly prescribed drug for type II diabetes and is associated with decreased cancer risk. Previously, we showed that metformin prevented tobacco carcinogen (NNK)-induced lung tumorigenesis in a non-diabetic mouse model, which was associated with decreased IGF-I/insulin receptor signaling but not activation of AMPK in lung tissues, as well as decreased circulating levels of IGF-I and insulin. Here, we used liver IGF-I-deficient (LID) mice to determine the importance of IGF-I in NNK-induced lung tumorigenesis and chemoprevention by metformin. LID mice had decreased lung tumor multiplicity and burden compared with wild-type (WT) mice. Metformin further decreased lung tumorigenesis in LID mice without affecting IGF-I levels, suggesting that metformin can act through IGF-I-independent mechanisms. In lung tissues, metformin decreased phosphorylation of multiple receptor tyrosine kinases (RTK) as well as levels of GTP-bound Ras independently of AMPK. Metformin also diminished plasma levels of several cognate ligands for these RTKs. Tissue distribution studies using [(14)C]-metformin showed that uptake of metformin was high in liver but four-fold lower in lungs, suggesting that the suppression of RTK activation by metformin occurs predominantly via systemic, indirect effects. Systemic inhibition of circulating growth factors and local RTK signaling are new AMPK-independent mechanisms of action of metformin that could underlie its ability to prevent tobacco carcinogen-induced lung tumorigenesis. Cancer Prev Res; 6(8); 801-10. ©2013 AACR.

[749]

TÍTULO / TITLE: - Predictive biochemical-markers for the development of brain metastases from lung cancer: Clinical evidence and future directions.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Epidemiol. 2013 Jun 28. pii: S1877-7821(13)00102-1. doi: 10.1016/j.canep.2013.06.003.

●● Enlace al texto completo (gratis o de pago) [1016/j.canep.2013.06.003](https://doi.org/10.1016/j.canep.2013.06.003)

AUTORES / AUTHORS: - Huang Q; Ouyang X

INSTITUCIÓN / INSTITUTION: - Department of Oncology, Fuzhou General Hospital, Fujian, China.

RESUMEN / SUMMARY: - BACKGROUND: Brain metastases are a common complication of patients with lung cancer and lung cancer is one of the most common causes of brain metastases. The occurrence of brain metastases is associated with poor prognosis and high morbidity, even after intensive multimodal therapy. Therefore, identifying lung cancer patients with who are at high risk of developing brain metastases and applying effect intervention is important to reduce or delay the incidence of brain metastases. Biochemical-markers may meet an unmet need for following patients' mechanisms of brain metastases. METHODS: Data for this review were identified by searches of Pubmed and Cochrane databases, and references from relevant articles using the search terms "lung cancer" and "brain metastasis". Meeting abstracts, unpublished reports and review articles were not considered. RESULTS: Clinical results for pathological and circulating markers including cancer molecular subtypes, miRNA, single nucleotide polymorphisms, and other markers are presented. However, these biochemical-markers are not yet established surrogate assessments for prediction of brain metastases. CONCLUSIONS: Biochemical-markers reported allowed physicians to identify which patients with lung cancer are at high risk for brain metastases. Prospective randomized clinical studies are needed to further assess the utility of these biochemical-markers.

[750]

TÍTULO / TITLE: - Family caregiver burden, skills preparedness, and quality of life in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Nurs Forum. 2013 Jul 1;40(4):337-46. doi: 10.1188/13.ONF.337-346.

●● Enlace al texto completo (gratis o de pago) [1188/13.ONF.337-346](#)

AUTORES / AUTHORS: - Grant M; Sun V; Fujinami R; Sidhu R; Otis-Green S; Juarez G; Klein L; Ferrell B

INSTITUCIÓN / INSTITUTION: - Department of Population Sciences, Nursing Research and Education.

RESUMEN / SUMMARY: - Purpose/Objectives: To describe burden, skills preparedness, and quality of life (QOL) for caregivers of patients with non-small cell lung cancer (NSCLC), and describe how the findings informed the development of a caregiver palliative care intervention that aims to reduce caregiver burden, improve caregiving skills, and promote self-care. Design: Descriptive, longitudinal. Setting: A National Cancer Institute-designated comprehensive cancer center in southern California. Sample: 163 family members or friends aged 18 years or older and identified by patients as being a caregiver. Methods: All eligible caregivers were approached by advanced practice nurses during a regularly scheduled patient clinic visit. Informed consent was obtained prior to study participation. Outcome measures were completed at baseline and repeated at 7, 12, 18, and 24 weeks. Descriptive

statistics were computed for all variables, and one-way repeated-measures analysis of variance was used to test for change over time for all predictor and outcome variables. Main Research Variables: Caregiver burden, skills preparedness, psychological distress, and QOL. Findings: Caregivers were highly functional. Caregiver burden related to subjective demands increased significantly over time. Perceived skills preparedness was high at baseline but decreased over time. Psychological distress was moderate but increased in the study period. Overall QOL was moderate at baseline and decreased significantly over time. Psychological well-being had the worst QOL score. Conclusions: Caregivers experienced high levels of caregiver burden and reported deteriorations in psychological well-being and overall QOL. Implications for Nursing: Oncology nurses need to ensure that caregivers receive information that supports the caregiving role throughout the cancer trajectory. Knowledge Translation: Although family caregivers are profoundly impacted by a loved one's lung cancer diagnosis, the literature about caregiver burden, skills preparedness, and QOL is limited. Current evidence suggests that family caregivers can be negatively impacted by a loved one's cancer diagnosis. Caregiver-specific support interventions are needed to eliminate the burden of caregiving in lung cancer.

[751]

TÍTULO / TITLE: - New monoallelic combination of KRAS gene mutations in codons 12 and 13 in the lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Adv Med Sci. 2013 Jun 1;58(1):83-9. doi: 10.2478/v10039-012-0080-0.

●● [Enlace al texto completo \(gratis o de pago\) 2478/v10039-012-0080-](#)

[0](#)

AUTORES / AUTHORS: - Charkiewicz R; Niklinska W; Zalewski G; Charkiewicz A; Kozłowski M; Sulewska A; Chyczewski L

RESUMEN / SUMMARY: - Abstract Purpose: In a retrospective analysis of the prevalence of KRAS mutations in patients with advanced non-small cell lung cancer (NSCLC), we detected a unique and not earlier described case of a double combination of mutations at codons 12 and 13 of the KRAS gene in a patient with lung adenocarcinoma. Material/Methods: To determine the molecular characteristics of the infrequent mutation and the mutational status of the KRAS gene in metastatic brain tumors in the same patient, we performed morphological and molecular tests. Results: Molecular analysis of the nature of the double mutation showed that the unique combination of variants is a monoallelic mutation. This type of changes has not yet been registered in the Catalogue of Somatic Mutations in Cancer database. Molecular assessment of the KRAS mutation status in the brain metastatic site in the same patient, showed no mutations in codons 12 and 13. Moreover, we did not find mutation

at exon 19 and 21 of EGFR gene, both in primary tumor as well as in secondary metastatic foci in the brain. Conclusions: The presented case shows an example of KRAS gene molecular mosaicism and heterogeneity of lung adenocarcinoma primary and metastatic tumors. Molecular heterogeneity of lung adenocarcinoma tumors can significantly affect eligibility of patients for targeted therapies.

[752]

TÍTULO / TITLE: - Non-viral transfection methods optimized for gene delivery to a lung cancer cell line.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Avicenna J Med Biotechnol. 2013 Apr;5(2):68-77.

AUTORES / AUTHORS: - Salimzadeh L; Jaberipour M; Hosseini A; Ghaderi A

INSTITUCIÓN / INSTITUTION: - Shiraz Institute for Cancer Research, Shiraz University of Medical Sciences, Shiraz, Iran.

RESUMEN / SUMMARY: - BACKGROUND: Mehr-80 is a newly established adherent human large cell lung cancer cell line that has not been transfected until now. This study aims to define the optimal transfection conditions and effects of some critical elements for enhancing gene delivery to this cell line by utilizing different non-viral transfection Procedures. METHODS: In the current study, calcium phosphate (CaP), DEAE-dextran, superfect, electroporation and lipofection transfection methods were used to optimize delivery of a plasmid construct that expressed Green Fluorescent Protein (GFP). Transgene expression was detected by fluorescent microscopy and flowcytometry. Toxicities of the methods were estimated by trypan blue staining. In order to evaluate the density of the transfected gene, we used a plasmid construct that expressed the Stromal cell-Derived Factor-1 (SDF-1) gene and measured its expression by real-time PCR. RESULTS: Mean levels of GFP-expressing cells 48 hr after transfection were 8.4% (CaP), 8.2% (DEAE-dextran), 4.9% (superfect), 34.1% (electroporation), and 40.1% (lipofection). Lipofection had the highest intense SDF-1 expression of the analyzed methods. CONCLUSION: This study has shown that the lipofection and electroporation methods were more efficient at gene delivery to Mehr-80 cells. The quantity of DNA per transfection, reagent concentration, and incubation time were identified as essential factors for successful transfection in all of the studied methods.

[753]

TÍTULO / TITLE: - Malignant mesothelioma, airborne asbestos, and the need for accuracy in chrysotile risk assessments.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - New Solut. 2013 Jan 1;23(2):389-405. doi: 10.2190/NS.23.2.k.

●● Enlace al texto completo (gratuito o de pago) [2190/NS.23.2.k](#)

AUTORES / AUTHORS: - Meisenkothen C

INSTITUCIÓN / INSTITUTION: - Early, Lucarelli, Sweeney & Meisenkothen.

RESUMEN / SUMMARY: - A man diagnosed with pleural mesothelioma sought legal representation with the author's law firm. He worked 33 years in a wire and cable factory in the northeastern United States (Connecticut) that exclusively used chrysotile asbestos in its manufacturing process. This is the first report of mesothelioma arising from employees of this factory. This report provides additional support for the proposition that chrysotile asbestos can cause malignant mesothelioma in humans. If chrysotile risk assessments are to be accurate, then the literature should contain an accurate accounting of all mesotheliomas alleged to be caused by chrysotile asbestos. This is important not just for public health professionals but also for individuals and companies involved in litigation over asbestos-related diseases. If reports such as these remain unknown, it is probable that cases of mesothelioma among chrysotile-exposed cohorts would go unrecognized and chrysotile-using factories would be incorrectly cited as having no mesotheliomas among their employees.

[754]

TÍTULO / TITLE: - UDP-glucuronosyltransferase 2B17 genotype and the risk of lung cancer among Austrian Caucasians.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Epidemiol. 2013 Jul 11. pii: S1877-7821(13)00103-3. doi: 10.1016/j.canep.2013.06.004.

●● Enlace al texto completo (gratis o de pago)

1016/j.canep.2013.06.004

AUTORES / AUTHORS: - Gruber M; Le T; Filipits M; Gsur A; Mannhalter C; Jager U; Vanura K

INSTITUCIÓN / INSTITUTION: - Department of Medicine I, Division of Hematology and Hemostaseology, Comprehensive Cancer Center, Medical University of Vienna, Waehringer Guertel 18-20, 1090 Vienna, Austria.

RESUMEN / SUMMARY: - Background: The enzyme uridine diphospho glucuronosyltransferase 2B17 (UGT2B17) glucuronidates several endogenous and exogenous compounds, including carcinogens from tobacco smoke like 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanol (NNAL). UGT2B17 shows a remarkable copy number variation (CNV) and an association between deletion genotype and increased risk of lung adenocarcinoma in women has been previously reported. Methods: We investigated the UGT2B17 CNV by PCR in 453 Austrian lung cancer patients and in 449 healthy donors and analyzed the impact on lung cancer susceptibility and outcome. Results: Copy numbers of UGT2B17 were 44.4% (+/+), 42.2% (+/-) and 13.5% (-/-) in lung cancer patients and 43.0% (+/+), 46.3% (+/-) and 10.7% (-/-) among healthy donors. The null genotype was not significantly more frequent among women with adenocarcinoma compared to healthy women (p=0.59). There was no association with overall survival (p=0.622) and no significant sex-associated (p=0.423) or histology-related impact on development of lung cancer.

Conclusion: UGT2B17 deletion genotype was not associated with a significant risk for lung cancer development or outcome in our Central European patient cohort. Our study indicates that UGT2B17 is not a crucial factor in lung carcinogenesis among Caucasians and shows the importance of investigating such markers in large cohorts from different populations.

[755]

TÍTULO / TITLE: - Prediction of lung tumor types based on protein attributes by machine learning algorithms.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Springerplus. 2013 May 24;2(1):238. Print 2013 Dec.

●● [Enlace al texto completo \(gratis o de pago\) 1186/2193-1801-2-238](#)

AUTORES / AUTHORS: - Hosseinzadeh F; Kayvanjoo AH; Ebrahimi M; Goliaei B
INSTITUCIÓN / INSTITUTION: - Laboratory of biophysics and molecular biology, Institute of Biophysics and Biochemistry (IBB), University of Tehran, Tehran, Iran.

RESUMEN / SUMMARY: - Early diagnosis of lung cancers and distinction between the tumor types (Small Cell Lung Cancer (SCLC) and Non-Small Cell Lung Cancer (NSCLC) are very important to increase the survival rate of patients. Herein, we propose a diagnostic system based on sequence-derived structural and physicochemical attributes of proteins that involved in both types of tumors via feature extraction, feature selection and prediction models. 1497 protein attributes computed and important features selected by 12 attribute weighting models and finally machine learning models consist of seven SVM models, three ANN models and two NB models applied on original database and newly created ones from attribute weighting models; models accuracies calculated through 10-fold cross and wrapper validation (just for SVM algorithms). In line with our previous findings, dipeptide composition, autocorrelation and distribution descriptor were the most important protein features selected by bioinformatics tools. The algorithms performances in lung cancer tumor type prediction increased when they applied on datasets created by attribute weighting models rather than original dataset. Wrapper-Validation performed better than X-Validation; the best cancer type prediction resulted from SVM and SVM Linear models (82%). The best accuracy of ANN gained when Neural Net model applied on SVM dataset (88%). This is the first report suggesting that the combination of protein features and attribute weighting models with machine learning algorithms can be effectively used to predict the type of lung cancer tumors (SCLC and NSCLC).

[756]

TÍTULO / TITLE: - Ataxia-telangiectasia group D complementing gene (ATDC) promotes lung cancer cell proliferation by activating NF-kappaB pathway.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 12;8(6):e63676. doi: 10.1371/journal.pone.0063676. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0063676](https://doi.org/10.1371/journal.pone.0063676)

AUTORES / AUTHORS: - Tang ZP; Dong QZ; Cui QZ; Papavassiliou P; Wang ED; Wang EH

INSTITUCIÓN / INSTITUTION: - Department of Pathology, The First Affiliated Hospital and College of Basic Medical Sciences of China Medical University, Shenyang City, China.

RESUMEN / SUMMARY: - Previous studies suggested Ataxia-telangiectasia group D complementing gene (ATDC) as an oncogene in many types of cancer. However, its expression and biological functions in non-small cell lung cancer (NSCLC) remain unclear. Herein, we investigated its expression pattern in 109 cases of human NSCLC samples by immunohistochemistry and found that ATDC was overexpressed in 62 of 109 NSCLC samples (56.88%). ATDC overexpression correlated with histological type ($p < 0.0001$), tumor status ($p = 0.0227$) and histological differentiation ($p = 0.0002$). Next, we overexpressed ATDC in normal human bronchial epithelial cell line HBE and depleted its expression in NSCLC cell lines A549 and H1299. MTT and colony formation assay showed that ATDC overexpression promoted cell proliferation while its depletion inhibited cell growth. Furthermore, cell cycle analysis showed that ATDC overexpression decreased the percentage of cells in G1 phase and increased the percentage of cells in S phase, while ATDC siRNA treatment increased the G1 phase percentage and decreased the S phase percentage. Further study revealed that ATDC overexpression could up-regulate cyclin D1 and c-Myc expression in HBE cells while its depletion down-regulated cyclin D1 and c-Myc expression in A549 and H1299 cells. In addition, ATDC overexpression was also associated with an increased proliferation index, cyclin D1 and c-Myc expression in human NSCLC samples. Further experiments demonstrated that ATDC up-regulated cyclin D1 and c-Myc expression independent of wnt/beta-catenin or p53 signaling pathway. Interestingly, ATDC overexpression increased NF-kappaB reporter luciferase activity and p-IkappaB protein level. Correspondingly, NF-kappaB inhibitor blocked the effect of ATDC on up-regulation of cyclin D1 and c-Myc. In conclusion, we demonstrated that ATDC could promote lung cancer proliferation through NF-kappaB induced up-regulation of cyclin D1 and c-Myc.

[757]

TÍTULO / TITLE: - Epidermal growth factor receptor in lung cancer: The amazing interplay of molecular and cytology.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Cytopathol. 2013 Jun 18. doi: 10.1002/cncy.21321.

●● Enlace al texto completo (gratis o de pago) [1002/cncy.21321](https://doi.org/10.1002/cncy.21321)

AUTORES / AUTHORS: - Idowu MO

INSTITUCIÓN / INSTITUTION: - Department of Pathology, Virginia Commonwealth University Health System, Richmond, Virginia.

[758]

TÍTULO / TITLE: - A miR-SNP of the XPO5 gene is associated with advanced non-small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Onco Targets Ther. 2013 Jul 11;6:877-81. doi: 10.2147/OTT.S48284. Print 2013.

●● Enlace al texto completo (gratis o de pago) [2147/OTT.S48284](#)

AUTORES / AUTHORS: - Ding C; Li C; Wang H; Li B; Guo Z

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, The Fourth Hospital of Hebei Medical University, Shijiazhuang, People's Republic of China.

RESUMEN / SUMMARY: - OBJECTIVES: MicroRNA (miRNA)-related single-nucleotide polymorphisms (SNPs) in miRNA processing machinery genes can affect cancer risk, treatment efficacy, and patient prognosis. A miR-SNP of rs11077 located in the 3' untranslated region (3' UTR) of the miRNA processing machinery gene XPO5 was examined in 112 advanced non-small-cell lung cancer (NSCLC) patients to evaluate its association with cancer outcome.

MATERIALS AND METHODS: The miR-SNP was genotyped with ligase detection reaction method. Survival curves were calculated using the Kaplan-Meier method, and multivariate survival analysis was performed using a Cox proportional hazards model. RESULTS: The AC genotype of rs11077, which carries C or A allele, was significantly associated with a better chemotherapy response (P = 0.001). In addition, rs11077 was independently associated with overall survival in advanced NSCLC patients through multivariate analysis (relative risk 0.457; 95% confidence interval: 0.251-0.831; P = 0.010).

CONCLUSION: rs11077 was associated with chemotherapy response and survival of advanced NSCLC patients. The analysis of miR-SNPs in miRNA processing machinery genes can help identify patient subgroups that are at high risk for poor disease outcomes.

[759]

TÍTULO / TITLE: - 19q13-ERCC1 Gene Copy Number Increase in Non-Small-Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jun 14. pii: S1525-7304(13)00076-4. doi: 10.1016/j.clcc.2013.01.006.

●● Enlace al texto completo (gratis o de pago) [1016/j.clcc.2013.01.006](#)

AUTORES / AUTHORS: - Vanhecke E; Valent A; Tang X; Vielh P; Friboulet L; Tang T; Goubar A; Li Y; Robin A; Behrens C; Commo F; Validire P; Andre F; Wistuba II; Soria JC; Olausson KA

INSTITUCIÓN / INSTITUTION: - INSERM U981, Villejuif, F-94805, France; Gustave Roussy, DHU TORINO, Villejuif, F-94805, France; Univ Paris-Sud, UMR-S981, Villejuif, F-94805, France.

RESUMEN / SUMMARY: - BACKGROUND: Excision repair cross complementing 1 gene expression level has potential as a prognostic and predictive marker of the efficacy of chemotherapy in NSCLC. The effect of ERCC1 gene copy number (CN) variation (CNV) on ERCC1 expression and the clinical outcome of patients with NSCLC are not known. MATERIALS AND METHODS: Copy number variation of the 19q13.3 region carrying the ERCC1 gene, classified as gene amplification (GA) or high polysomy (HP), was evaluated on 235 formalin-fixed and paraffin-embedded tumors from resected NSCLC patient samples and 16 NSCLC cell lines using FISH. We analyzed the potential correlations between FISH status and ERCC1 expression, patient's outcome, and cisplatin sensitivity in the cohort or cell lines. RESULTS: An increase of 19q13.3 gene CN was detected in 60 cases (25.5%) including 27 cases with GA and 33 cases with HP. A nonsignificant trend for higher ERCC1 expression in HP patients compared with GA and patients with low CNV was found ($P = .06$). In patients not treated with chemotherapy, FISH negative status cases had longer disease-free survival (DFS) compared with patients with 19q13-ERCC1 GA ($P = .02$). A 3-fold increase in IC50 of cisplatin in cell lines with high 19q13-ERCC1 CN compared with cells without CNV was shown. CONCLUSION: ERCC1 CN increase assessed using FISH did not determine ERCC1 expression status but yields potential prognostic information on DFS in untreated patients with NSCLC. The clinical relevance of an association of 19q13-ERCC1 FISH status and chemosensitivity or prognosis in patients needs further investigation and validation.

[760]

TÍTULO / TITLE: - Diagnosing ovine pulmonary adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Vet Rec. 2013 Jul 20;173(3):75. doi: 10.1136/vr.f4654.

- Enlace al texto completo (gratis o de pago) [1136/vr.f4654](#)

[761]

TÍTULO / TITLE: - Nicotinic Acetylcholine Receptor Subunits alpha4 and alpha5 Associated with Smoking Behaviour and Lung Cancer Are Regulated by Upstream Open Reading Frames.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jul 2;8(7):e66157. doi: 10.1371/journal.pone.0066157. Print 2013.

- Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0066157](#)

AUTORES / AUTHORS: - Eggert M; Aichinger E; Pfaffl MW; Steinlein OK; Pfob M

INSTITUCIÓN / INSTITUTION: - Institute of Human Genetics, University Hospital, Ludwig-Maximilians-University Munich, Munich, Germany.

RESUMEN / SUMMARY: - Nicotinic acetylcholine receptor subunits (nAChR) are associated with different aspects of smoking behaviour as well as with smoking related disorders. Several of these subunits have been found to be upregulated in smokers or differentially expressed in lung tumor cells. The mechanisms behind these observations are not known but assumed to be mainly post-transcriptional. Many post-transcriptional mechanisms are initiated by functionally relevant sequence motifs within untranslated gene regions, such as upstream open reading frames (uORFs). We performed a systematic search in all smoking-associated neuronal nAChR subunits and identified functionally relevant uORFs in CHRNA4 and CHRNA5. Luciferase experiments showed that these uORFs are able to significantly decrease protein expression. Our quantitative real-time PCR (qPCR) results strongly suggest that the observed effects originate at the translation rather than at the transcription level. Interestingly, the CHRNA4 uORF was only functionally relevant when expressed in the shorter isoform of this gene. Therefore, the data presented in this study strongly points towards an important role of uORFs within the 5'UTR of CHRNA4-isoform 1 and CHRNA5 as regulators of protein translation. Moreover, the shared uORF of CHRNA4-isoform 1/isoform 2 represents the first example of a sequence context-dependent uORF.

[762]

TÍTULO / TITLE: - What is your diagnosis? Pulmonary adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Am Vet Med Assoc. 2013 Jun 15;242(12):1637-9. doi: 10.2460/javma.242.12.1637.

- Enlace al texto completo (gratis o de pago)

[2460/javma.242.12.1637](#)

AUTORES / AUTHORS: - Hanson J; Latouche JS; Chamberlin N

INSTITUCIÓN / INSTITUTION: - VDIC/Idexx Telemedicine Consultants, 9200 SE Sunnyside Blvd, Clackamas, OR 97015, USA. jennifer-hanson@idexx.com

[763]

TÍTULO / TITLE: - An exceptional case of myelodysplastic syndrome with myelofibrosis following combination chemotherapy for squamous cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Biol Med. 2013 Jun;10(2):117-20. doi: 10.7497/j.issn.2095-3941.2013.02.010.

- Enlace al texto completo (gratis o de pago) [7497/j.issn.2095-](#)

[3941.2013.02.010](#)

AUTORES / AUTHORS: - Wang YH; Fu R; Shao ZH

INSTITUCIÓN / INSTITUTION: - Department of Hematology, Tianjin Medical University General Hospital, Tianjin 300052, China.

RESUMEN / SUMMARY: - A 60-year-old woman with squamous cell carcinoma in the right lung was successfully treated with four cycles of combination chemotherapy after surgery, and complete remission was achieved. However, the patient developed myelodysplastic syndrome (MDS) RAEB-2 with myelofibrosis after remission, possibly because of chemotherapy or DNA methylation. The patient responded well to dacitabine (Dacogen), suggesting that DNA hypomethylation agents can be a promising therapy to retard the progression of a second tumor or carcinoma.

[764]

TÍTULO / TITLE: - MCAM expression is associated with poor prognosis in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Transl Oncol. 2013 Jun 8.

●● Enlace al texto completo (gratis o de pago) [1007/s12094-013-1057-](http://1007/s12094-013-1057-6)

[6](#)

AUTORES / AUTHORS: - Zhang X; Wang Z; Kang Y; Li X; Ma X; Ma L

INSTITUCIÓN / INSTITUTION: - Department of Respiratory and Critical Care Medicine, People's Hospital of Zhengzhou University, Weiwu Road 7, Zhengzhou, Henan, China.

RESUMEN / SUMMARY: - BACKGROUND: MCAM has been recently identified as a biomarker for epithelial-mesenchymal transition (EMT) and is potentially involved in metastasis of cancer. The current study aimed at investigating the expression of MCAM in non-small-cell lung cancer (NSCLC) and its clinicopathological significance. METHODS: A follow-up analysis was performed on 118 patients with NSCLC resected by lobectomy or pneumectomy with systematic lymph node dissection. All patients were followed for 6-60 months. Immunostaining of tissue sections from primary tumors and their lymph node metastasis was performed and evaluated using monoclonal antibody against MCAM, E-cadherin, and vimentin. Correlations were investigated between MCAM immunostaining in primary tumors and E-cadherin, vimentin immunostaining, lymph node metastasis, and survival. RESULTS: MCAM protein expression was found in 46.61 % of squamous cell carcinomas and 37.47 % of adenocarcinomas; MCAM expression positively correlated with vimentin, but inversely with E-cadherin (both P values <0.05). There were significant correlations between the MCAM immunostaining score in primary tumors and in their lymph node metastasis (P = 0.03). According to the Kaplan-Meier survival estimate, the level of MCAM expression in primary tumors was a statistically significant prognostic factor (P < 0.05). CONCLUSIONS: MCAM expression in surgically treated NSCLC is clearly associated with lymph node metastasis and poor prognosis.

[765]

TÍTULO / TITLE: - Does the expression of BCL2 have prognostic significance in malignant peritoneal mesothelioma?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Am J Cancer Res. 2013 Jun 20;3(3):312-22. Print 2013.

AUTORES / AUTHORS: - Pillai K; Pourgholami MH; Chua TC; Morris DL

INSTITUCIÓN / INSTITUTION: - Department of Surgery, St. George Hospital, University of New South Wales Kogarah, NSW 2217, Australia.

RESUMEN / SUMMARY: - Background Malignant peritoneal mesothelioma (MPM) is a rare neoplasm of the peritoneal membrane that is causally related to asbestos exposure. Survival after treatment is poor. Current therapy involving hyperthermic intraperitoneal chemotherapy has improved survival in selective patients. In the past, several prognostic factors have been identified in MPM patients and this has prompted the development of new therapies and patient management. Since BCL2, an antiapoptotic oncoprotein, is a favourable prognostic factor in breast cancer, we investigated to determine the significance of BCL2 in MPM. Materials and Methods Forty two archival patient tumour sections embedded in paraffin blocks were sectioned and subjected to immunohistochemistry to detect BCL2. The staining intensity and abundance was classified using standard procedures and classified into two groups (0-4 = low & 5-8 = high expression). The distribution of BCL2 groups was examined in the different clinicopathological categories to determine prognosis using Kaplan-Meier survival analysis. RESULTS: Univariate analysis revealed that in almost all clinicopathological categories, high BCL2 expression predisposed patients to a favourable prognosis. Independent of BCL2 expression, univariate analysis also showed that male gender, sarcomatoid histology, high PCI and age at diagnosis ≥ 60 years were associated poor prognosis. Multivariate analysis indicated that for all tumours, males and females, high BCL2 expression was associated with good prognosis. Further, independent of BCL2, age ≥ 60 years is an unfavourable prognostic factor. CONCLUSION: Expression of BCL2 may serve to distinguish prognosis within the individual clinicopathological categories. BCL2 is also an independent variable in all tumours, males and females, with high expression being associated with good prognosis.

[766]

TÍTULO / TITLE: - A complicated, metastatic, humeral air sac cystadenocarcinoma in a timneh African grey parrot (*Psittacus erithacus timneh*).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Avian Med Surg. 2013 Mar;27(1):38-43.

AUTORES / AUTHORS: - Azmanis P; Stenkat J; Hubel J; Bohme J; Krautwald-Junghanns ME; Schmidt V

INSTITUCIÓN / INSTITUTION: - Clinic for Birds and Reptiles, University of Leipzig An den Tierkliniken, 17, 04103, Leipzig, Germany.

RESUMEN / SUMMARY: - A 9-year-old male timneh African grey parrot (*Psittacus erithacus timneh*) was presented because of inability to fly and suspected trauma. The owner also had observed dyspnea, with tail bobbing and open-beak breathing. On clinical examination, a hard, painful mass was palpable in the left proximal humerus and axillary area. Radiographs revealed a radiodense soft tissue mass of the left humerus with no bony involvement, multifocal opacities in lung and air sacs, and an enlarged spleen. An asymmetric, vascularized cyst was detected in the mass by ultrasound examination. Results of biopsy of the mass revealed multifocal cysts composed of unilayer isoprismatic cells laying in vascularized connective tissue. Because of the severity of clinical signs and the poor clinical condition, the bird was euthanized. On postmortem examination, the findings were air sac cystadenocarcinoma involving the humeral air sac with metastases in the spleen and kidneys, atherosclerosis, pneumoconiosis, and mycotic granulomatous pneumonia and airsacculitis with isolation of *Aspergillus niger*.

[767]

TÍTULO / TITLE: - Inhibitory Effects of Salinomycin on Cell Survival, Colony Growth, Migration, and Invasion of Human Non-Small Cell Lung Cancer A549 and LNM35: Involvement of NAG-1.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 21;8(6):e66931. Print 2013.

●● Enlace al texto completo (gratis o de pago)

1371/journal.pone.0066931

AUTORES / AUTHORS: - Arafat K; Iratni R; Takahashi T; Parekh K; Al Dhaheri Y; Adrian TE; Attoub S

INSTITUCIÓN / INSTITUTION: - Department of Pharmacology and Therapeutics, College of Medicine and Health Sciences, United Arab Emirates University, Al-Ain, United Arab Emirates.

RESUMEN / SUMMARY: - A major challenge for oncologists and pharmacologists is to develop more potent and less toxic drugs that will decrease the tumor growth and improve the survival of lung cancer patients. Salinomycin is a polyether antibiotic used to kill gram-positive bacteria including mycobacteria, protozoans such as *plasmodium falciparum*, and the parasites responsible for the poultry disease coccidiosis. This old agent is now a serious anti-cancer drug candidate that selectively inhibits the growth of cancer stem cells. We investigated the impact of salinomycin on survival, colony growth, migration and invasion of the differentiated human non-small cell lung cancer lines LNM35 and A549. Salinomycin caused concentration- and time-dependent reduction in viability of LNM35 and A549 cells through a caspase 3/7-associated cell death pathway. Similarly, salinomycin (2.5-5 μM for 7 days) significantly decreased the growth of LNM35 and A549 colonies in soft agar. Metastasis is the main cause of death related to lung cancer. In this context, salinomycin induced a time- and concentration-dependent inhibition of cell migration and

invasion. We also demonstrated for the first time that salinomycin induced a marked increase in the expression of the pro-apoptotic protein NAG-1 leading to the inhibition of lung cancer cell invasion but not cell survival. These findings identify salinomycin as a promising novel therapeutic agent for lung cancer.

[768]

TÍTULO / TITLE: - Ganetespib AIDS lung cancer survival.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Discov. 2013 Jul;3(7):OF7. doi: 10.1158/2159-8290.CD-NB2013-085. Epub 2013 Jun 6.

●● Enlace al texto completo (gratis o de pago) [1158/2159-8290.CD-NB2013-085](#)

RESUMEN / SUMMARY: - A randomized phase II clinical trial demonstrated that combining the second-generation heat shock protein 90 inhibitor ganetespib with docetaxel can boost overall survival in patients with advanced lung adenocarcinoma who started therapy more than six months after diagnosis.

[769]

TÍTULO / TITLE: - The Effect of a Lung Cancer Care Coordination Program on Timeliness of Care.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 1. pii: S1525-7304(13)00071-5. doi: 10.1016/j.clcc.2013.04.004.

●● Enlace al texto completo (gratis o de pago) [1016/j.clcc.2013.04.004](#)

AUTORES / AUTHORS: - Alsamarai S; Yao X; Cain HC; Chang BW; Chao HH; Connery DM; Deng Y; Garla VN; Hunnibell LS; Kim AW; Obando JA; Taylor C; Tellides G; Rose MG

INSTITUCIÓN / INSTITUTION: - Frank Netter School of Medicine at Quinnipiac University and Midstate Medical Center, Meriden, CT.

RESUMEN / SUMMARY: - BACKGROUND: Timeliness of care improves patient satisfaction and might improve outcomes. The CCCP was established in November 2007 to improve timeliness of care of NSCLC at the Veterans Affairs Connecticut Healthcare System (VACHS). PATIENTS AND METHODS: We performed a retrospective cohort analysis of patients diagnosed with NSCLC at VACHS between 2005 and 2010. We compared timeliness of care and stage at diagnosis before and after the implementation of the CCCP. RESULTS: Data from 352 patients were analyzed: 163 with initial abnormal imaging between January 1, 2005 and October 31, 2007, and 189 with imaging conducted between November 1, 2007 and December 31, 2010. Variables associated with a longer interval between the initial abnormal image and the initiation of therapy were: (1) earlier stage (mean of 130 days for stages I/II vs. 87 days for stages III/IV; $P < .0001$); (2) lack of cancer-related symptoms (145 vs. 60 days; $P < .0001$); (3) presence of more than 1 medical comorbidity (123 vs. 82; $P = .0002$); and (4) depression (126 vs. 98 days; $P = .029$). The percent of patients

diagnosed at stages I/II increased from 32% to 48% (P = .006) after establishment of the CCCP. In a multivariate model adjusting for stage, histology, reason for imaging, and presence of primary care provider, implementation of the CCCP resulted in a mean reduction of 25 days between first abnormal image and the initiation of treatment (126 to 101 days; P = .015). CONCLUSION: A centralized, multidisciplinary, hospital-based CCCP can improve timeliness of NSCLC care, and help ensure that early stage lung cancers are diagnosed and treated.

[770]

TÍTULO / TITLE: - Prognostic value of chemotherapy-induced leukopenia in small-cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Biol Med. 2013 Jun;10(2):92-8. doi: 10.7497/j.issn.2095-3941.2013.02.005.

●● Enlace al texto completo (gratis o de pago) [7497/j.issn.2095-3941.2013.02.005](#)

AUTORES / AUTHORS: - Liu W; Zhang CC; Li K

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Oncology, Key Laboratory of Cancer Prevention and Treatment of Tianjin City, Tianjin Lung Cancer Center, Tianjin Medical University Cancer Institute and Hospital, Tianjin 300060, China.

RESUMEN / SUMMARY: - OBJECTIVE: Chemotherapy is the standard treatment for small-cell lung cancer (SCLC), and leukopenia is a common side effect. This study assesses whether chemotherapy-induced leukopenia is a predictor of efficacy and whether it is associated with the survival of SCLC patients. METHODS: A retrospective analysis was conducted on data from 445 patients with SCLC who received standard chemotherapy for 4 to 10 cycles. The World Health Organization grading system classifies leukopenia during chemotherapy as follows: absent (grade 0), mild (grades 1 and 2), or severe (grades 3 and 4). The primary endpoint is overall survival (OS). RESULTS: The association between chemotherapy-induced leukopenia and OS was assessed. According to a multivariate Cox model with time-varying covariates, the hazard ratio of death was significantly lower among patients with mild leukopenia than among patients with severe leukopenia at 0.687 (0.506 to 0.943) and 1.414 (1.147 to 1.744), respectively. The median survival was 13 months (95% CI: 11 to 15 months) for patients who did not experience leukopenia, 17 months (95% CI: 14 to 18 months) for those with mild leukopenia, and 14 months (95% CI: 13 to 16 months) for those with severe leukopenia (absent vs. mild vs. severe leukopenia, P=0.047). CONCLUSION: Leukopenia during chemotherapy is associated with the survival of SCLC patients. Mild leukopenia is strongly associated with longer survival time.

[771]

TÍTULO / TITLE: - Efficacy of platinum-based adjuvant chemotherapy in T2aN0 stage IB non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cardiothorac Surg. 2013 Jun 11;8:151. doi: 10.1186/1749-8090-8-151.

●● Enlace al texto completo (gratis o de pago) [1186/1749-8090-8-151](#)

AUTORES / AUTHORS: - Park SY; Lee JG; Kim J; Byun GE; Bae MK; Lee CY; Kim DJ; Chung KY

INSTITUCIÓN / INSTITUTION: - Department of Thoracic and Cardiovascular Surgery, Yonsei University College of Medicine, 50 Yonsei-ro, Seodaemun-gu, Seoul 120-752, Republic of Korea. kychu@yuhs.ac.

RESUMEN / SUMMARY: - BACKGROUND: Although overall survival for non-small cell lung cancer (NSCLC) has increased, survival rate for pathologically staged T2aN0M0 stage IB NSCLC remains low. Adjuvant chemotherapy is not a standard treatment for stage IB NSCLC. Our purpose was to determine the efficacy of platinum-based adjuvant chemotherapy in stage IB NSCLC. METHODS: We retrospectively reviewed the medical records of 119 stage IB patients who underwent lobectomy and mediastinal lymph node dissection. Among these, 60 patients underwent platinum-based adjuvant chemotherapy (adjuvant group) and 59 did not receive chemotherapy (observation group). RESULTS: Participants had a mean age of 62.12 +/- 11.51 years and 73 (61.3%) were male. The median follow-up period was 49.04 months. Mean age was higher in the observation group whereas patients in the adjuvant group had larger tumors, more dissected lymph nodes, and better performance status. The 5-year overall survival was 64.7% in the observation group and 88.2% in the adjuvant group (p = 0.010). The 5-year disease-free survival was 51.3% in the observation group and 74.0% in the adjuvant group (p = 0.011). In multivariate analysis, only platinum-based adjuvant chemotherapy was a risk factor for overall survival [hazard ratio (HR) = 0.428, p = 0.049] and disease-free survival (HR = 0.57, p = 0.043). In subset analysis, patients with a larger tumor (greater than 3.2 cm), moderate to poor differentiation, and good performance status (Eastern Cooperative Oncology Group, 0) benefitted from platinum-based adjuvant chemotherapy. CONCLUSIONS: Platinum-based adjuvant chemotherapy for surgically treated stage IB NSCLC might offer better survival than observation alone. A large-scale randomized clinical trial is needed to validate these findings.

[772]

TÍTULO / TITLE: - Phase II Study of Topotecan and Bevacizumab in Advanced, Refractory Non-small-cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jun 28. pii: S1525-7304(13)00077-6. doi: 10.1016/j.clcc.2013.04.009.

●● Enlace al texto completo (gratis o de pago) [1016/j.clcc.2013.04.009](#)

AUTORES / AUTHORS: - Powell SF; Beitinjaneh A; Tessema M; Bliss RL; Kratzke RA; Leach J; Dudek AZ

INSTITUCIÓN / INSTITUTION: - Division of Hematology, Oncology and Transplantation, University of Minnesota Masonic Cancer Center, Minneapolis, MN.

RESUMEN / SUMMARY: - BACKGROUND: This clinical trial evaluated whether topotecan in combination with bevacizumab improved progression-free survival (PFS) in patients with advanced, refractory non-small-cell lung cancer in a second-line setting. PATIENT AND METHODS: Patients aged 18 years old and older received topotecan (4.0 mg/m²) on days 1, 8, and 15, and bevacizumab (10 mg/kg) on days 1 and 15 as intravenous infusions on a 28-day treatment cycle. Available tumor specimens were analyzed for ISG15 gene expression as a biomarker of response to topotecan. RESULTS: Forty-two patients were enrolled in the study, with a median age of 62.5 years and a median of 3 (range, 1-7) prior treatment regimens. Almost half (n = 18, 42.9%) of the patients received prior bevacizumab therapy. PFS was 5.1 months (95% CI, 3.7-7.8 months), and overall survival was 11.5 months (95% CI, 6.8-15.5 months). Response rates were as follows: 14.3% partial response, 54.8% stable disease, and 28.6% progressive disease. Hematologic toxicities included grade 3 thrombocytopenia (n = 7, 16.7%), neutropenia (n = 4, 9.5%), and anemia (n = 2, 4.8%). One toxic death occurred due to pulmonary hemorrhage, and one patient experienced a grade 4 pulmonary embolism. Grade 3 nonhematologic adverse events were uncommon (< 8%). There was a trend for improved median PFS, 3.5 months vs. 1.8 months (P = .26), in patients with high ISG15 expression. CONCLUSION: Bevacizumab in combination with topotecan as a salvage therapy for metastatic non-small-cell lung cancer is well tolerated and is worthy of further investigation.

PTPTPTP - JOURNAL ARTICLE

[773]

TÍTULO / TITLE: - Frizzled-8 receptor is activated by the Wnt-2 ligand in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - BMC Cancer. 2013 Jul 1;13:316. doi: 10.1186/1471-2407-13-316.

●● Enlace al texto completo (gratis o de pago) [1186/1471-2407-13-316](#)

AUTORES / AUTHORS: - Bravo DT; Yang YL; Kuchenbecker K; Hung MS; Xu Z; Jablons DM; You L

INSTITUCIÓN / INSTITUTION: - Department of Surgery, Helen Diller Family Comprehensive Cancer Center, University of California, 2340 Sutter Street, N-221, San Francisco, CA 94115, USA. liang.you@ucsfmedctr.org.

RESUMEN / SUMMARY: - BACKGROUND: Wnt-2 plays an oncogenic role in cancer, but which Frizzled receptor(s) mediates the Wnt-2 signaling pathway in lung cancer remains unclear. We sought to (1) identify and evaluate the

activation of Wnt-2 signaling through Frizzled-8 in non-small cell lung cancer, and (2) test whether a novel expression construct dominant negative Wnt-2 (dnhWnt-2) reduces tumor growth in a colony formation assay and in a xenograft mouse model. METHODS: Semi-quantitative RT-PCR was used to identify the expression of Wnt-2 and Frizzled-8 in 50 lung cancer tissues from patients. The TCF reporter assay (TOP/FOP) was used to detect the activation of the Wnt canonical pathway in vitro. A novel dnhWnt-2 construct was designed and used to inhibit activation of Wnt-2 signaling through Frizzled-8 in 293T, 293, A549 and A427 cells and in a xenograft mouse model. Statistical comparisons were made using Student's t-test. RESULTS: Among the 50 lung cancer samples, we identified a 91% correlation between the transcriptional increase of Wnt-2 and Frizzled-8 ($p < 0.05$). The Wnt canonical pathway was activated when both Wnt-2 and Frizzled-8 were co-expressed in 293T, 293, A549 and A427 cells. The dnhWnt-2 construct we used inhibited the activation of Wnt-2 signaling in 293T, 293, A549 and A427 cells, and reduced the colony formation of NSCLC cells when beta-catenin was present ($p < 0.05$). Inhibition of Wnt-2 activation by the dnhWnt-2 construct further reduced the size and mass of tumors in the xenograft mouse model ($p < 0.05$). The inhibition also decreased the expression of target genes of Wnt signaling in these tumors. CONCLUSIONS: We demonstrated an activation of Wnt-2 signaling via the Frizzled-8 receptor in NSCLC cells. A novel dnhWnt-2 construct significantly inhibits Wnt-2 signaling, reduces colony formation of NSCLC cells in vitro and tumor growth in a xenograft mouse model. The dnhWnt-2 construct may provide a new therapeutic avenue for targeting the Wnt pathway in lung cancer.

[774]

TÍTULO / TITLE: - The concentration of CYFRA 21-1, NSE and CEA in cerebro-spinal fluid can be useful indicators for diagnosis of meningeal carcinomatosis of lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Biomark. 2013 Jan 1;13(2):123-30. doi: 10.3233/CBM-130338.

●● Enlace al texto completo (gratis o de pago) [3233/CBM-130338](#)

AUTORES / AUTHORS: - Wang P; Piao Y; Zhang X; Li W; Hao X

INSTITUCIÓN / INSTITUTION: - Department of Neuro-oncology and Neurosurgery, Key Laboratory of Cancer Prevention and Therapy, Tianjin Medical University Cancer Institute and Hospital, Tianjin, China.

RESUMEN / SUMMARY: - PURPOSES: We aimed to investigate the concentration of CYFRA 21-1, NSE and CEA in cerebro-spinal fluid (CSF) and to explore their clinical value in the meningeal carcinomatosis (MC) of lung cancer. So that, sensitive and specificity of CSF examination can be improved in the initial diagnosis of MC. METHOD: A total of 35 lung cancer patients and 35 patients with benign brain tumor in the same period enrolled in this study. The concentrations of tumor markers CEA, CYFRA 21-1 and NSE in CSF and

peripheral blood were examined. RESULT: The concentrations of three tumor markers of CYFRA 21-1, NSE and CEA in blood serum and CSF were obviously higher than that of benign disease group. In MC patients, the concentrations of three tumor markers of CYFRA 21-1, NSE and CEA in blood serum were significant lower than that in CSF. The maximum of Youden's index was identified as the cutoff value of indicator of MC in three tumor markers in CSF which were CEA > 4.7 mug/L, NSE > 14.6 mug/L and CYFRA21-1 > 5.5 mug/L respectively. Based on the cutoff values, the CEA had the highest sensitivity while the CYFRA21-1 had the highest specificity. Three tumor markers in the CSF had higher positive rate than those in blood serum. We combined the levels of CEA, NSE and CYFRA21-1 in CSF to diagnosis of MC. Positive of CEA or CYFRA21-1 had the greatest sensitivity of 100% while the specificity of 91.4%; the positive of both CEA and CYFRA21-1 had the highest specificity of 100% while the sensitivity of 74.3%. Both positive predictive value and negative predictive value were 100% when combination positive were confirmed when the all three markers were positive. CONCLUSION: The combination of CEA and CYFRA21-1 can be recommended in early screening of meningeal carcinoma. Especially, for the patient who was difficult to be diagnosed by CSF histology and MRI, it will be a useful auxiliary marker in diagnosis of MC. The combination of CEA, NSE and CYFRA21-1 can be an effective clinically confirmation and exclusively diagnose indicator of MC.

[775]

TÍTULO / TITLE: - Antiglycine receptor antibody and encephalomyelitis with rigidity and myoclonus (PERM) related to small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - British Medical J (BMJ). 2013 Jun 21;2013. pii: bcr2013010027. doi: 10.1136/bcr-2013-010027.

<http://bmj.com/search.dtl> ●● British Medical J. (BMJ): <> Case Rep. 2013 Jun 21;2013. pii: bcr2013010027. doi: 10.1136/bcr-2013-010027.

●● Enlace al texto completo (gratis o de pago) 1136/bcr-2013-010027

AUTORES / AUTHORS: - Kyskan R; Chapman K; Mattman A; Sin D

INSTITUCIÓN / INSTITUTION: - Department of Medicine, University of British Columbia and St Paul's Hospital, Vancouver, British Columbia, Canada.

RESUMEN / SUMMARY: - A 39-year-old man (a lifetime non-smoker) presented with a locked left jaw and leg myoclonus. Clinical and electromyographic findings were in keeping with progressive encephalomyelitis with rigidity and myoclonus (PERM) syndrome. A thoracic CT scan demonstrated a 19 mm right hilar nodule, which was proven to be small cell lung cancer on bronchoscopic biopsy. Serological evaluation of the patient's plasma revealed antibodies against glycine receptors (serology negative for anti-GAD, anti-Yo, anti-Hu, anti-Ri, anti-amphiphysin, anti-Ma2/Ta, anti-CRMP5 and anti-NMDA receptor). After his cancer was treated with chemotherapy and intravenous immunoglobulins (IVIg), neurological symptoms resolved but returned several months later without any evidence of cancer recurrence. Symptoms were refractory to

corticosteroids and IVIg therapy. Rituximab was then initiated, which led to a dramatic and sustained resolution of symptoms. To our knowledge, this is the first case of PERM related to antiglycine receptor antibodies from paraneoplastic syndrome, which resolved with rituximab.

[776]

TÍTULO / TITLE: - Imaging of bronchioloalveolar carcinoma in the mice with the alphabeta integrin-targeted tracer Tc-RGD-4CK.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Transl Res. 2013 Jul 16. pii: S1931-5244(13)00206-5. doi: 10.1016/j.trsl.2013.06.006.

●● Enlace al texto completo (gratis o de pago) [1016/j.trsl.2013.06.006](#)

AUTORES / AUTHORS: - Liu B; Feng Y; Zhang JY; Li HM; Li XD; Jia HL; Li ZY; Feng J

INSTITUCIÓN / INSTITUTION: - Department of Nuclear Medicine, The Second Affiliated Hospital of Hebei Medical University, Shijiazhuang, China; Hebei Provincial Crops Hospital of Chinese People's Armed Police Force, Shijiazhuang, China; Logistics University of CPAPF, Tianjin, China; Department of Neurology, The Second Affiliated Hospital of Hebei Medical University, Shijiazhuang, China.

RESUMEN / SUMMARY: - Receptor-based imaging agents have shown improved specificity and sensitivity of cancer diagnosis by targeting the specific features of cancer. Here we reported the ^{99m}Tc-labeling of a cyclic polypeptide RGD-4CK and the characterization of this agent in vitro and in bronchioloalveolar carcinoma (BAC) xenograft model. The alphabeta3 integrin receptor binding affinity of ^{99m}Tc-RGD-4CK was determined in BAC. The cancer targeting properties of ^{99m}Tc-RGD-4CK were determined in NCI-H358 xenografted nude mice. Moreover, the BAC uptake of ^{99m}Tc-RGD-4CK was blocked with nonradiolabeled RGD-4CK in xenografts. The competitive assay showed that ^{99m}Tc-RGD-4CK exhibited high specificity to BAC cell line NCI-H358. Biodistribution studies indicated that ^{99m}Tc-RGD-4CK exhibited high tumor uptake (4.12 +/- 1.21% injected dose/g 120 minutes after injection) and prolonged tumor retention (2.08 +/- 0.33% injected dose/g 240 minutes after injection) in NCI-H358 xenografted nude mice. Moreover, ^{99m}Tc-RGD-4CK produced a good tumor-to-lung ratio (2.38) because of low lung activity accumulation 120 minutes postinjection. BAC on the flank of xenografted mice was clearly visualized by single photon emission computed tomography/computed tomography imaging using ^{99m}Tc-RGD-4CK. In conclusion, this study provides evidence that ^{99m}Tc-RGD-4CK is a promising agent for noninvasive determination of alphabeta3 integrin status and therapy monitoring in BAC.

[777]

TÍTULO / TITLE: - Prognostic impact of serum albumin levels on the recurrence of stage I non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clinics (Sao Paulo). 2013 May;68(5). pii: S1807-59322013000500686. doi: 10.6061/clinics/2013(05)17.

●● Enlace al texto completo (gratis o de pago) [6061/clinics/2013\(05\)17](#)

AUTORES / AUTHORS: - Jin Y; Zhao L; Peng F

INSTITUCIÓN / INSTITUTION: - Department of Medical Oncology, Zhejiang Cancer Hospital, Hangzhou, China.

RESUMEN / SUMMARY: - Objective: Patients with stage I non-small cell lung cancer who have undergone complete surgical resection harbor a 30% risk for tumor recurrence. Thus, the identification of factors that are predictive for tumor recurrence is urgently needed. The aim of this study was to test the prognostic value of serum albumin levels on tumor recurrence in patients with stage I non-small cell lung cancer. Methods: Stage I non-small cell lung cancer patients who underwent complete surgical resection of the primary tumor at Zhejiang Hospital were analyzed in this study. Serum albumin levels were measured before surgery and once again after surgery in 101 histologically diagnosed non-small cell lung cancer patients. Correlations between the pre- and post-operative serum albumin levels and various clinical demographics and recurrence-free survival rates were analyzed. Results: Patients with pre-operative hypoalbuminemia (<3.5 g/dl) had a significantly worse survival rate than patients with normal pre-operative serum albumin levels (≥ 3.5 g/dl) ($p=0.008$). Patients with post-operative hypoalbuminemia had a worse survival rate when compared with patients with normal post-operative serum albumin levels ($p=0.001$). Cox multivariate analysis identified pre-operative hypoalbuminemia, post-operative hypoalbuminemia and tumor size over 3 cm as independent negative prognostic factors for recurrence. Conclusion: Serum albumin levels appear to be a significant independent prognostic factor for tumor recurrence in patients with stage I non-small cell lung cancer who have undergone complete resection. Patient pre-treatment and post-treatment serum albumin levels provide an easy and early means of discrimination between patients with a higher risk for recurrence and patients with a low risk of recurrence.

[778]

TÍTULO / TITLE: - Cholangiocarcinoma of intrahepatic bile ducts with disseminated metastases in an African lion (*Panthera leo*).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Zoo Wildl Med. 2013 Jun;44(2):509-12.

AUTORES / AUTHORS: - Lepri E; Sforza M; Chiara B; Giovanni V

INSTITUCIÓN / INSTITUTION: - Department of Biopathological Sciences and Hygiene of Animal and Food Products, Faculty of Veterinary Medicine, Perugia, Via S. Costanzo, 4. 06126 Perugia, Italy. elvio.lepri@unipg.it

RESUMEN / SUMMARY: - A cholangiocarcinoma is reported in an 18-yr-old, female African lion (*Panthera leo*). The primary tumor consisted of multifocal to coalescing, hepatic, white-yellow masses distributed throughout the liver lobes. Metastases were present in regional lymph nodes, peritoneal surface, and lungs. Histologically, the tumor was characterized by a tubular pattern with alcian- and periodic acid-Schiff-positive secretory material in cystic spaces. The neoplastic cells were positive to broad-spectrum cytokeratins. Histochemical and immunohistochemical stains were consistent with bile duct carcinoma. Biliary tumors arising from the gallbladder have been reported in lions. However, to the authors' knowledge, this is the first case of intrahepatic bile duct carcinoma reported in an African lion.

[779]

TÍTULO / TITLE: - The noncoding RNA expression profile and the effect of lncRNA AK126698 on cisplatin resistance in non-small-cell lung cancer cell.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 May 31;8(5):e65309. doi: 10.1371/journal.pone.0065309. Print 2013.

- Enlace al texto completo (gratis o de pago)

1371/journal.pone.0065309

AUTORES / AUTHORS: - Yang Y; Li H; Hou S; Hu B; Liu J; Wang J

INSTITUCIÓN / INSTITUTION: - Beijing Key Laboratory of Respiratory and Pulmonary Circulation, Capital Medical University, Beijing, China.

RESUMEN / SUMMARY: - BACKGROUND: The efficacy of cisplatin-based chemotherapy in non-small-cell lung cancer is limited by the acquired drug resistance. Identification the RNAs related to the cisplatin resistance may help to improve clinical response rates. METHODS: Microarray expression profiling of mRNAs, lncRNA and miRNA was undertaken in A549 cells and cisplatin resistant A549/CDDP cells. Differentially expressed mRNAs, lncRNAs and miRNAs, verified by realtime RT-PCR, were subjected to pathway analysis. Expression of NKD2 and beta-catenin was assessed by realtime RT-PCR and western blot analysis. The effect of lncRNA AK126698 on cisplatin induced apoptosis was investigated by annexin-V/PI flow cytometry. RESULTS: In total, 1471 mRNAs, 1380 lncRNAs and 25 miRNAs differentially expressed in A549/CDDP and A549 cells. Among them, 8 mRNAs, 8 lncRNAs and 5 miRNAs differentially expressed in gene chip analysis were validated. High-enrichment pathway analysis identified that some classical pathways participated in proliferation, differentiation, avoidance of apoptosis, and drug metabolism were differently expressed in these cells lines. Gene co-expression network identified many genes like FN1, CTSB, EGFR, and NKD2; lncRNAs including BX648420, ENST00000366408, and AK126698; and miRNAs such as miR-26^a and let-7i potentially played a key role in cisplatin resistance. Among which, the canonical Wnt pathway was investigated because it was demonstrated to be targeted by

both lncRNAs and miRNAs including lncRNA AK126698. Knockdown lncRNA AK126698 not only greatly decreased NKD2 which can negatively regulate Wnt/beta-catenin signaling but also increased the accumulation and nuclear translocation of beta-catenin, and significantly depressed apoptosis rate induced by cisplatin in A549 cells. CONCLUSION: Cisplatin resistance in non-small-cell lung cancer cells may relate to the changes in noncoding RNAs. Among these, AK126698 appears to confer cisplatin resistance by targeting the Wnt pathway.

[780]

TÍTULO / TITLE: - Picoplatin pharmacokinetics and chemotherapy of non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Expert Opin Drug Metab Toxicol. 2013 Jul 6.

- [Enlace al texto completo \(gratis o de pago\)](#)

[1517/17425255.2013.815724](#)

AUTORES / AUTHORS: - Hamilton G; Olszewski U

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RESUMEN / SUMMARY: - Introduction: Picoplatin was developed as platinum coordination complex to overcome development of resistance, through conjugation to thioles, by the introduction of a methyl-pyridine moiety into the cisplatin parent structure. Pharmacokinetic parameters of the drug, after intravenous and oral application, were studied in solid tumors and clinical Phase I - III trials performed, in particular in NSCLC and small cell lung cancer (SCLC). Results showed low clinical activity of picoplatin. Areas covered: This article presents an overview of the pharmacokinetic assessments of picoplatin in lung cancer. Specifically, the authors address the relationship between disposition and clinical activity of the drug. Expert opinion: Picoplatin failed to overcome resistance to platinum compounds in lung cancer to achieve significant improved survival of most patients. Even highest doses of the drug reaching 150 mg/m² given intravenously every 3 weeks were not sufficient to achieve better response than existing chemotherapeutics and the oral bioavailability of a dose of 200 - 400 mg corresponded only to 80 mg/m² iv. Picoplatin therefore seem to be quite ineffective. Picoplatin is expected to overcome tumor resistance in cases which overexpress thiol-conjugating pathways; however, this was not proved in clinical trials. To conclude, this blocked platinum complex is not able to reverse cisplatin resistance to a significant extent in vivo and its mechanisms and kinetics and of DNA damage failed to produce significant clinical results compared to second-line standard therapy for lung cancer.

[781]

TÍTULO / TITLE: - Prognostic and predictive value of KRAS mutations in advanced non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 May 28;8(5):e64816. doi: 10.1371/journal.pone.0064816. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0064816](#)

AUTORES / AUTHORS: - Sun JM; Hwang DW; Ahn JS; Ahn MJ; Park K

INSTITUCIÓN / INSTITUTION: - Division of Hematology-Oncology, Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea.

RESUMEN / SUMMARY: - Clinical implications of KRAS mutations in advanced non-small cell lung cancer remain unclear. We retrospectively evaluated the prognostic and predictive value of KRAS mutations in patients with advanced NSCLC. Among 484 patients with available results for both KRAS and EGFR mutations, 39 (8%) had KRAS and 182 (38%) EGFR mutations, with two cases having both mutations. The median overall survivals for patients with KRAS mutations, EGFR mutations, or both wild types were 7.7, 38.0, and 15.0 months, respectively (P<0.001). The KRAS mutation was an independent poor prognostic factor in the multivariate analysis (hazard ratio = 2.6, 95% CI: 1.8-3.7). Response rates and progression-free survival (PFS) for the pemetrexed-based regimen in the KRAS mutation group were 14% and 2.1 months, inferior to those (28% and 3.9 months) in the KRAS wild type group. KRAS mutation tended to be associated with inferior treatment outcomes after gemcitabine-based chemotherapy, while there was no difference regarding taxane-based regimen. Although the clinical outcomes to EGFR tyrosine kinase inhibitors (TKIs) seemed to be better in patients with KRAS wild type than those with KRAS mutations, there was no statistical difference in response rates and PFS according to KRAS mutation status when EGFR mutation status was considered. Two patients with both KRAS and EGFR mutations showed partial response to EGFR TKIs. Although G12D mutation appeared more frequently in never smokers, there was no difference in clinical outcomes according to KRAS genotypes. These results suggested KRAS mutations have an independent prognostic value but a limited predictive role for EGFR TKIs or cytotoxic chemotherapy in advanced NSCLC.

[782]

TÍTULO / TITLE: - The challenge of prognostic markers in pleural mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Dis. 2013 Jun;5(3):205-6. doi: 10.3978/j.issn.2072-1439.2013.06.12.

●● Enlace al texto completo (gratis o de pago) [3978/j.issn.2072-1439.2013.06.12](#)

AUTORES / AUTHORS: - Imperatori A; Castiglioni M; Mortara L; Nardecchia E; Rotolo N

INSTITUCIÓN / INSTITUTION: - Center for Thoracic Surgery, Department of Surgical and Morphological Sciences, University of Insubria, Varese, Italy;

RESUMEN / SUMMARY: - Malignant pleural mesothelioma (MPM) is a very aggressive tumor, highly resistant to chemo- and radio-therapy. Treatment of MPM patients is often disappointing, regardless of the modality used. Inter-individual variability of response to multimodal treatment remains a challenge and generally the MPM prognosis continues to be poor. Knowledge of predicting factors of outcome is currently insufficient; therefore, it would be highly desirable to find specific prognostic markers for MPM. Translational research projects are to be implemented.

[783]

TÍTULO / TITLE: - Evaluation of dose prediction error and optimization convergence error in four-dimensional inverse planning of robotic stereotactic lung radiotherapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Appl Clin Med Phys. 2013 Jul 8;14(4):4270. doi: 10.1120/jacmp.v14i4.4270.

AUTORES / AUTHORS: - Chan MK; Kwong DL; Tong A; Tam E; Ng SC

INSTITUCIÓN / INSTITUTION: - The University of Hong Kong, Tuen Mun Hospital. ckh456@ha.org.hk.

RESUMEN / SUMMARY: - Inverse optimization of robotic stereotactic lung radiotherapy is typically performed using relatively simple dose calculation algorithm on a single instance of breathing geometry. Variations of patient geometry and tissue density during respiration could reduce the dose accuracy of these 3D optimized plans. To quantify the potential benefits of direct four-dimensional (4D) optimization in robotic lung radiosurgery, 4D optimizations using 1) ray-tracing algorithm with equivalent path-length heterogeneity correction (4EPLopt), and 2) Monte Carlo (MC) algorithm (4MCopt), were performed in 25 patients. The 4EPLopt plans were recalculated using MC algorithm (4MCrecal) to quantify the dose prediction errors (DPEs). Optimization convergence errors (OCEs) were evaluated by comparing the 4MCrecal and 4MCopt dose results. The results were analyzed by dose-volume histogram indices for selected organs. Statistical equivalence tests were performed to determine the clinical significance of the DPEs and OCEs, compared with a 3% tolerance. Statistical equivalence tests indicated that the DPE and the OCE are significant predominately in GTV D98%. The DPEs in V20 of lung, and D2% of cord, trachea, and esophagus are within 1.2%, while the OCEs are within 10.4% in lung V20 and within 3.5% in trachea D2%. The marked DPE and OCE suggest that 4D MC optimization is important to improve the dosimetric accuracy in robotic-based stereotactic body radiotherapy, despite the longer computation time.

[784]

TÍTULO / TITLE: - Dosimetric evaluation of four-dimensional dose distributions of CyberKnife and volumetric-modulated arc radiotherapy in stereotactic body lung radiotherapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Appl Clin Med Phys. 2013 Jul 8;14(4):4229. doi: 10.1120/jacmp.v14i4.4229.

AUTORES / AUTHORS: - Chan MK; Kwong DL; Law GM; Tam E; Tong A; Lee V; Ng SC

INSTITUCIÓN / INSTITUTION: - The University of Hong Kong, Tuen Mun Hospital. ckh456@ha.org.hk.

RESUMEN / SUMMARY: - Advanced image-guided stereotactic body lung radiotherapy techniques using volumetric-modulated arc radiotherapy (VMAT) with four-dimensional cone-beam computed tomography (4D CBCT) and CyberKnife with real-time target tracking have been clinically implemented by different authors. However, dosimetric comparisons between these techniques are lacking. In this study, 4D CT scans of 14 patients were used to create VMAT and CyberKnife treatment plans using 4D dose calculations. The GTV and the organs at risk (OARs) were defined on the end-exhale images for CyberKnife planning and were then deformed to the midventilation images (MidV) for VMAT optimization. Direct 4D Monte Carlo dose optimizations were performed for CyberKnife (4DCK). Four-dimensional dose calculations were also applied to VMAT plans to generate the 4D dose distributions (4DVMAT) on the exhale images for direct comparisons with the 4DCK plans. 4DCK and 4DVMAT showed comparable target conformity (1.31 +/- 0.13 vs. 1.39 +/- 0.24, p = 0.05). GTV mean doses were significantly higher with 4DCK. Statistical differences of dose volume metrics were not observed in the majority of OARs studied, except for esophagus, with 4DVMAT yielding marginally higher D1% than 4DCK. The normal tissue volumes receiving 80%, 50%, and 30% of the prescription dose (V80%, V50%, and V30%) were higher with 4DVMAT, whereas 4DCK yielded slightly higher V10% in posterior lesions than 4DVMAT. VMAT resulted in much less monitor units and therefore greater delivery efficiency than CyberKnife. In general, it was possible to produce dosimetrically acceptable plans with both techniques. The selection of treatment modality should consider the dosimetric results as well as the patient's tolerance of the treatment process specific to the SBRT technique.

[785]

TÍTULO / TITLE: - Radiotherapy for Stage III Non-Small-Cell Lung Carcinoma in the Elderly (Age >= 70 years).

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 24. pii: S1525-7304(13)00083-1. doi: 10.1016/j.clcc.2013.05.001.

●● Enlace al texto completo (gratis o de pago) 1016/j.clc.2013.05.001

AUTORES / AUTHORS: - Aridgides PD; Janik A; Bogart JA; Duffy S; Rosenbaum P; Gajra A

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, SUNY Upstate Medical University, Syracuse, NY. Electronic address: aridgidp@upstate.edu.

RESUMEN / SUMMARY: - BACKGROUND: Elderly patients are underrepresented in trials that establish definitive chemoradiotherapy as the standard of care for inoperable stage III non-small-cell lung carcinoma (NSCLC). This study analyzed radiotherapy treatment delivery and outcomes at our institution according to elderly (≥ 70 years old) or younger (< 70 years) age. METHODS: Records of patients who received radiotherapy for stage III NSCLC between January 1998 and February 2010 were reviewed. Factors analyzed included Eastern Cooperative Oncology Group Performance Status (ECOG PS), weight loss, radiation therapy intent, and chemotherapy administered. RESULTS: A total of 189 patients with stage III NSCLC were analyzed (age range, 28-92 years). Elderly patients ($n = 86$) were more likely to have ECOG PS ≥ 2 ($P < .05$) and receive palliative treatment ($P < .05$). Elderly patients less often received concurrent chemoradiotherapy ($P < .05$) as well as cisplatin ($P < .05$). Median survival was 10.3 months for elderly patients compared with 17.2 months for younger patients ($P < .05$). In addition, elderly patients with ECOG PS ($P < .05$) as well as those who received definitive concurrent chemoradiotherapy ($P < .05$) had inferior outcomes compared with otherwise similar younger patients. However, on multivariate analysis, elderly age was not associated ($P = .428$) with increased risk of death, whereas poor ECOG PS (≥ 2) was significant ($P < .05$). In elderly patients, definitive treatment ($P < .05$), chemotherapy administration ($P < .05$), and ECOG PS of 0-1 ($P < .05$) were associated with improved outcome. CONCLUSIONS: Although elderly patients with stage III NSCLC experience inferior outcomes than younger patients with comparable disease, they are also more likely to receive suboptimal therapy. On multivariate analysis, advanced age was not associated with worse survival, which indicates that appropriately selected elderly patients should receive definitive chemoradiotherapy.

[786]

TÍTULO / TITLE: - Interdisciplinary Palliative Care Intervention in Metastatic Non-Small-Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 18. pii: S1525-7304(13)00136-8. doi: 10.1016/j.clc.2013.06.008.

●● Enlace al texto completo (gratis o de pago) 1016/j.clc.2013.06.008

AUTORES / AUTHORS: - Koczywas M; Cristea M; Thomas J; McCarty C; Borneman T; Del Ferraro C; Sun V; Uman G; Ferrell B

INSTITUCIÓN / INSTITUTION: - Medical Oncology and Therapeutics Research, City of Hope, Duarte, CA.

RESUMEN / SUMMARY: - OBJECTIVE: Challenges and barriers continue to hinder the integration of palliative care models into comprehensive, ambulatory oncology care. This article aims to describe how symptoms, distress, and quality of life (QOL) data from the usual care phase of a National Cancer Institute-supported Program Project informed the development of an interdisciplinary, tailored palliative care intervention for patients with metastatic non-small-cell lung cancer (NSCLC). METHODS: Patients receiving usual care for metastatic NSCLC were recruited into this prospective longitudinal study over a 1-year period. A total of 130 patients with stage IV NSCLC were accrued, and 114 patients had evaluable data. Research nurses assisted patients in completing the clinical section of the data forms, and patients completed surveys and self-reports at baseline and 6, 12, and 24 weeks. RESULTS: Patients ranged in age from 40 to 84 years, and 61% were Caucasian non-Hispanic. Sixty-six former (N = 59) and current smokers had an average of 38 pack-year history of smoking. The Karnofsky Performance Status, Instrumental Activities of Daily Living, and Cognitive scores deteriorated significantly (P = .001, .009, and .042, respectively). Social Activity was stable, whereas Social Support increased significantly. Overall symptom distress score and Total symptom score both significantly increased at 24 weeks (P = .003 and .017, respectively). Physical Well-Being decreased significantly (P = .036), whereas the Functional Assessment of Cancer Therapy-Lung, Functional Assessment of Chronic Illness Therapy-Spirituality Subscale, and Distress scores remained statistically stable over time. CONCLUSIONS: Patients with metastatic NSCLC continue to experience high symptom burden and diminished physical well-being over time while receiving cancer treatments. An interdisciplinary palliative care intervention is currently being tested to improve symptom burden and overall QOL.

[787]

TÍTULO / TITLE: - Abnormal expression of Pygopus 2 correlates with a malignant phenotype in human lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - BMC Cancer. 2013 Jul 16;13:346. doi: 10.1186/1471-2407-13-346.

●● Enlace al texto completo (gratis o de pago) [1186/1471-2407-13-346](#)

AUTORES / AUTHORS: - Liu Y; Dong QZ; Wang S; Fang CQ; Miao Y; Wang L; Li MZ; Wang EH

INSTITUCIÓN / INSTITUTION: - Department of Pathology, The First Affiliated Hospital and College of Basic Medical Sciences of China Medical University, Shenyang 110001, PR China. wangeh@hotmail.com.

RESUMEN / SUMMARY: - BACKGROUND: Pygopus 2 (Pygo2) is a Pygo family member and an important component of the Wnt signaling transcriptional complex. Despite this data, no clinical studies investigating Pygo2 expression in lung cancer have yet been reported. METHODS: In the present study, the

expression patterns of Pygo2 were evaluated by immunochemistry in 168 patients with non-small cell lung cancer (NSCLC). We used small interfering RNA (siRNA) to specifically silence Pygo2, and investigated its effect on cell growth by an 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay and flow cytometry analysis in human lung cancer cell lines. RESULTS: Immunohistochemical analysis showed low expression of Pygo2 in normal lung tissues and increased nuclear expression in lung cancer tissues, either with or without perinuclear expression. Abnormal Pygo2 expression was associated with poor differentiation and a high Tumor (T), Node (N) and Metastases (M) stage in NSCLC patients, and correlated with poor prognosis. Using MTT assay we observed that Pygo2 downregulation inhibited cell proliferation; in addition, flow cytometry analysis showed that Pygo2 knockdown induced apoptosis and increased numbers of G1-phase cells and a reduction in S-phase cells. CONCLUSIONS: We therefore conclude that abnormal Pygo2 protein expression may be a marker for advanced NSCLC. Furthermore, Pygo2 knockdown suppresses cell growth.

[788]

TÍTULO / TITLE: - Contactin-1 reduces E-cadherin expression via activating AKT in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 May 28;8(5):e65463. doi: 10.1371/journal.pone.0065463. Print 2013.

- Enlace al texto completo (gratis o de pago)

1371/journal.pone.0065463

AUTORES / AUTHORS: - Yan J; Wong N; Hung C; Chen WX; Tang D

INSTITUCIÓN / INSTITUTION: - Division of Nephrology, Department of Medicine, McMaster University, Hamilton, Ontario, Canada.

RESUMEN / SUMMARY: - Contactin-1 has been shown to promote cancer metastasis. However, the underlying mechanisms remain unclear. We report here that knockdown of contactin-1 in A549 lung cancer cells reduced A549 cell invasion and the cell's ability to grow in soft agar without affecting cell proliferation. Reduction of contactin-1 resulted in upregulation of E-cadherin, consistent with E-cadherin being inhibitive of cancer cell invasion. In an effort to investigate the mechanisms whereby contactin-1 reduces E-cadherin expression, we observed that contactin-1 plays a role in AKT activation, as knockdown of contactin-1 attenuated AKT activation. Additionally, inhibition of AKT activation significantly enhanced E-cadherin expression, an observation that mimics the situation observed in contactin-1 knockdown, suggesting that activation of AKT plays a role in contactin-1-mediated downregulation of E-cadherin. In addition, we were able to show that knockdown of contactin-1 did not further reduce A549 cell's invasion ability, when AKT activation was inhibited by an AKT inhibitor. To further support our findings, we overexpressed CNTN-1 in two CNTN-1 null breast cancer cell lines expressing E-cadherin.

Upon overexpression, CNTN-1 reduced E-cadherin levels in one cell line and increased AKT activation in the other. Furthermore, in our study of 63 primary lung cancers, we observed 65% of primary lung cancers being contactin-1 positive and in these carcinomas, 61% were E-cadherin negative. Collectively, we provide evidence that contactin-1 plays a role in the downregulation of E-cadherin in lung cancer and that AKT activation contributes to this process. In a study of mechanisms responsible for contactin-1 to activate AKT, we demonstrated that knockdown of CNTN-1 in A549 cells did not enhance PTEN expression but upregulated PHLPP2, a phosphatase that dephosphorylates AKT. These observations thus suggest that contactin-1 enhances AKT activation in part by preventing PHLPP2-mediated AKT dephosphorylation.

[789]

TÍTULO / TITLE: - Identification of microRNAs differentially expressed between lung squamous cell carcinoma and lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Med Rep. 2013 Aug;8(2):456-62. doi: 10.3892/mmr.2013.1517. Epub 2013 Jun 11.

●● [Enlace al texto completo \(gratis o de pago\) 3892/mmr.2013.1517](#)

AUTORES / AUTHORS: - Hamamoto J; Soejima K; Yoda S; Naoki K; Nakayama S; Satomi R; Terai H; Ikemura S; Sato T; Yasuda H; Hayashi Y; Sakamoto M; Takebayashi T; Betsuyaku T

INSTITUCIÓN / INSTITUTION: - Department of Pulmonary Medicine, School of Medicine, Keio University, Tokyo 160-8582, Japan.

RESUMEN / SUMMARY: - Recent advances in the treatment of non-small cell lung cancer (NSCLC) with new agents require accurate histological subtyping at diagnosis to avoid the higher risk of an adverse response and to obtain the maximum therapeutic response. However, interobserver variability, tumor heterogeneity and the degree of differentiation may affect the decision concerning a pathological diagnosis of NSCLC. Therefore, the aim of this study was to identify specific microRNAs (miRNAs) as standardized biomarkers with high sensitivity and specificity in order to distinguish between squamous cell carcinoma (SCC) and adenocarcinoma (AC). Quantitative polymerase chain reaction (qPCR) based miRNA array analysis was performed to identify microRNAs differentially expressed between SCC and AC using 86 resected NSCLC samples in addition to adjacent normal tissues. The results were confirmed by independent qRT-PCR assays with the same test samples and 88 additional validation samples, and from this we evaluated the usefulness of the identified miRNAs as biomarkers to distinguish between SCC and AC. Three miRNAs (hsa-miR-196b, hsa-miR-205 and hsa-miR-375) were identified. Discriminant analysis combining the three miRNAs appeared to distinguish SCC from AC accurately in the test and validation samples, demonstrating a sensitivity and specificity of 76 and 80%, and 85 and 83%, respectively. hsa-miR-196b, hsa-miR-205 and hsa-miR-375 were identified as biomarkers

capable of distinguishing between lung SCC and lung AC. These newly identified miRNAs may prove to be highly valuable molecular markers for the classification of NSCLC histological subtypes and may contribute to the pathogenesis of each subtype of NSCLC.

[790]

TÍTULO / TITLE: - An in-silico comparison of proton beam and IMRT for postoperative radiotherapy in completely resected stage IIIA non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Radiat Oncol. 2013 Jun 15;8(1):144.

●● Enlace al texto completo (gratis o de pago) [1186/1748-717X-8-144](#)

AUTORES / AUTHORS: - Berman AT; Teo BK; Dolney D; Swisher-McClure S; Shahnazi K; Both S; Rengan R

RESUMEN / SUMMARY: - INTRODUCTION: Post-operative radiotherapy (PORT) for stage IIIA completely-resected non-small cell lung cancer (CR-NSCLC) has been shown to improve local control; however, it is unclear that this translates into a survival benefit. One explanation is that the detrimental effect of PORT on critical organs at risk (OARs) negates its benefit. This study reports an in-silico comparative analysis of passive scattering proton therapy (PSPT)- and intensity modulated proton therapy (IMPT) with intensity modulated photon beam radiotherapy (IMRT) PORT. METHODS: The computed tomography treatment planning scans of ten patients with pathologic stage IIIA CR-NSCLC treated with IMRT were used. IMRT, PSPT, and IMPT plans were generated and analyzed for dosimetric endpoints. The proton plans were constructed with two or three beams. All plans were optimized to deliver 50.4 Gy(RBE) in 1.8 Gy(RBE) fractions to the target volume. RESULTS: IMPT leads to statistically significant reductions in maximum spinal cord, mean lung dose, lung volumes treated to 5, 10, 20, and 30 Gy (V5, V10, V20, V30), mean heart dose, and heart volume treated to 40 Gy (V40), when compared with IMRT or PSPT. PSPT reduced lung V5 but increased lung V20, V30, and heart and esophagus V40. CONCLUSIONS: IMPT demonstrates a large decrease in dose to all OARs. PSPT, while reducing the low-dose lung bath, increases the volume of lung receiving high dose. Reductions are seen in dosimetric parameters predictive of radiation pneumonitis and cardiac morbidity and mortality. This reduction may correlate with a decrease in dose-limiting toxicity and improve the therapeutic ratio.

[791]

TÍTULO / TITLE: - Chemotherapy for non-small cell lung cancer complicated by idiopathic interstitial pneumonia.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Lett. 2012 Sep;4(3):477-482. Epub 2012 Jun 12.

●● Enlace al texto completo (gratis o de pago) [3892/ol.2012.753](#)

AUTORES / AUTHORS: - Kinoshita T; Azuma K; Sasada T; Okamoto M; Hattori S; Imamura Y; Yamada K; Tajiri M; Yoshida T; Zaizen Y; Kawahara A; Fujimoto K; Hoshino T

INSTITUCIÓN / INSTITUTION: - Department of Internal Medicine, Division of Respiriology, Neurology and Rheumatology, Kurume University, Kurume, Japan.

RESUMEN / SUMMARY: - Idiopathic interstitial pneumonia (IIP) is considered to be one of the risk factors for lung cancer (LC). However, therapeutic options for patients with LC complicated by IIP are not well established. In this study, we investigated the feasibility and efficacy of chemotherapy for patients with non-small cell lung cancer (NSCLC) complicated by IIP (NSCLC-IIP). We retrospectively analyzed 22 NSCLC-IIP patients who received chemotherapy. To determine how IIP affected the clinical outcomes in NSCLC, they were compared with 276 NSCLC patients without IIP, who were treated with chemotherapy alone. The response rate (partial response + stable disease) was 72.3% (17/22), whereas the incidence of acute exacerbation (AE) was 13.6% (3/22) in NSCLC-IIP patients treated with chemotherapy. NSCLC-IIP patients had significantly shorter survival compared with NSCLC patients without IIP ($P < 0.001$) following chemotherapy, although the response rates to chemotherapy were not significantly different between the two groups. Multivariate analysis demonstrated that, in NSCLC patients receiving chemotherapy, IIP was a significantly unfavorable factor for progression-free and overall survival. Despite similar response rates to chemotherapy, NSCLC-IIP patients showed poorer prognosis than NSCLC patients without IIP, possibly due to the natural course of IIP. Chemotherapy may be a feasible option for NSCLC-IIP, if the risks of adverse effects are acceptable.

[792]

TÍTULO / TITLE: - 7,8-Dihydroxycoumarin inhibits A549 human lung adenocarcinoma cell proliferation by inducing apoptosis via suppression of Akt/NF-kappaB signaling.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Exp Ther Med. 2013 Jun;5(6):1770-1774. Epub 2013 Apr 9.

●● Enlace al texto completo (gratis o de pago) 3892/etm.2013.1054

AUTORES / AUTHORS: - Wang Y; Li CF; Pan LM; Gao ZL

INSTITUCIÓN / INSTITUTION: - Departments of Thoracic Surgery, China-Japan Union Hospital of Jilin University, Changchun, Jilin 133033;

RESUMEN / SUMMARY: - The Akt/NF-kappaB pathways are involved in numerous anti-apoptotic and drug-resistance events that occur in non-small cell lung cancer (NSCLC). In the present study, the role of 7,8-dihydroxycoumarin in the regulation of the anti-apoptotic Akt and NF-kappaBp65 signaling pathways was explored. A549 human lung adenocarcinoma cells were exposed to 7,8-dihydroxycoumarin with a final concentration of 25, 50 and 100 $\mu\text{mol/l}$ for 48 h. Quantitative polymerase chain reaction (PCR) and western blotting were

performed to detect mRNA and protein expression, respectively. The MTT assay was performed to detect cell proliferation. The results demonstrated that anti-apoptotic phospho-Akt1 (pAkt1), phospho-IkappaBalpha (plkappaBalpha), NF-kappaBp65 and Bcl-2 were inhibited and pro-apoptotic caspase-3 was upregulated in a concentration-dependent manner. At a concentration of 100 mumol/l, the anti-apoptotic NF-kappaBp65 and Bcl-2 mRNA expression levels decreased 0.12 (5.82/48.5, treated/control)-fold and 0.17 (6.7/39.4, treated/control)-fold, respectively. The pro-apoptotic caspase-3 mRNA was upregulated 4.43 (39.4/8.9, treated/control)-fold. The anti-apoptotic pAkt1, plkappaBalpha, NF-kappaBp65 and Bcl-2 proteins were downregulated, with blot grayscale values of 7.3 (vs. 52.4 control), 4.3 (vs. 42.2 control), 5.08 (vs. 44.5 control) and 5.92 (vs. 38.5 control), respectively. The proapoptotic caspase-3 was upregulated to a blot grayscale value of 27.8 (vs. 5.8 control). The proliferative activity of A549 cells was reduced significantly compared with that of the control cells (83.7, 27.2 and 9.5 vs. 100%, respectively; P<0.05 for each). 7,8-Dihydroxycoumarin plays an important role in the induction of apoptosis via suppression of Akt/NF-kappaB signaling in A549 human lung adenocarcinoma cells in a concentration-dependent manner. 7,8-Dihydroxycoumarin may be a candidate naturally-occurring drug for the treatment and prevention of lung adenocarcinoma.

[793]

TÍTULO / TITLE: - Coexistence of acute miliary pulmonary tuberculosis and metastatic lung adenocarcinoma: a case report.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Quant Imaging Med Surg. 2013 Jun;3(3):178-9. doi: 10.3978/j.issn.2223-4292.2013.06.06.

●● [Enlace al texto completo \(gratis o de pago\) 3978/j.issn.2223-4292.2013.06.06](#)

AUTORES / AUTHORS: - Wang Y; Tu L; Li Z; Wang X; Luo Y; Huang C; Sun L

INSTITUCIÓN / INSTITUTION: - Department of Abdomen Oncology, Cancer Center, West China Hospital, Sichuan University, Chengdu 610041, China;

RESUMEN / SUMMARY: - A 36-year-old man complained of cough, expectoration and progressive anhelation for more than 3 months. Thoracic computed tomography (CT) showed miliary nodules diffusely distributed throughout both lungs. Acute miliary pulmonary tuberculosis (AMPT) was confirmed by sputum culture; meanwhile lung adenocarcinoma was found by sputum cytology. Subsequently, adenocarcinoma of colon was diagnosed according to PET/CT images and histopathology. Herein we report this case of coexistence of AMPT and metastatic lung adenocarcinoma, and suggest that diagnosis of pulmonary tuberculosis should be made cautiously for patients with diffusely miliary nodules, especially for those without symptoms alleviated after anti-tuberculous treatment.

[794]

TÍTULO / TITLE: - EML4-ALK-Positive Pulmonary Adenocarcinoma with an Unusual Metastatic Pattern: A Case Report.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Case Rep Oncol. 2013 Jun 13;6(2):316-9. doi: 10.1159/000352086. Print 2013 May.

●● Enlace al texto completo (gratis o de pago) [1159/000352086](#)

AUTORES / AUTHORS: - Diem S; Fruh M; Rodriguez R; Liechti P; Rothermundt C

INSTITUCIÓN / INSTITUTION: - Departments of Medical Oncology, Sargans, Switzerland.

RESUMEN / SUMMARY: - BACKGROUND: Non-small cell adenocarcinoma is a frequent tumour entity with a high mortality. Insight into molecular mechanisms has led to the development of promising therapeutic options, which improve the prognosis of affected patients. There are only a few reports on molecular tumour subtypes and clinical presentation of the disease. We present the case of a patient with anaplastic lymphoma kinase (ALK)-positive adenocarcinoma of the lung with an unusual metastatic pattern. CONCLUSION: The metastatic pattern of non-small cell lung cancer with ALK translocation may be different from other lung cancers. An uncommon clinical presentation may sensitize treating physicians to perform corresponding molecular testing in order to offer the best treatment options.

[795]

TÍTULO / TITLE: - A distinctive colour associated with high iodine content in malignant pleural effusion from metastatic papillary thyroid cancer: a case report.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Med Case Rep. 2013 May 31;7(1):147. doi: 10.1186/1752-1947-7-147.

●● Enlace al texto completo (gratis o de pago) [1186/1752-1947-7-147](#)

AUTORES / AUTHORS: - Rosenstengel A; Lim EM; Millward M; Lee YG

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, Sir Charles Gairdner Hospital, Hospital Avenue, Nedlands, Perth, WA, 6009, Australia. gary.lee@liwa.uwa.edu.au.

RESUMEN / SUMMARY: - INTRODUCTION: Pleural effusions are a common clinical problem and affect about one million people in the United States and United Kingdom each year. Over 60 causes of pleural effusion have been identified; establishing the definitive aetiology can be difficult, and often requires invasive procedures. Guidelines state that macroscopic examination of the fluid should be the first step in determining the aetiology of a pleural effusion. Papillary thyroid carcinoma is an uncommon cause of malignant pleural effusion, with only 10 cases reported in the literature, their physical characteristics and composition having been rarely described. We describe for the first time a distinctive brown colour of the malignant effusion (despite

centrifugation) from a rare case of metastatic papillary thyroid cancer to the pleura, associated with a high pleural fluid iodine content. Such a characteristic may be useful in expediting diagnosis of a malignant pleural effusion in the appropriate clinical context. CASE PRESENTATION: We present the case of a 71-year-old Caucasian man with metastatic papillary thyroid cancer; a large, long-standing, right-sided pleural effusion and a 83-fold higher pleural thyroglobulin level compared to corresponding serum, supporting this malignancy as the cause of the patient's effusion. The pleural fluid had a distinctive pigmentation similar to iodine-containing antiseptic preparations. Biopsy during medical thoracoscopy confirmed metastatic papillary thyroid carcinoma. Analysis of pleural fluid showed a pleural thyroglobulin level over 80 times that of serum levels (29,000µg/L versus 350µg/L). Pleural fluid iodine content was 23,000µg/L and may account for the fluid's distinctive pigment, as iodine is an essential component in thyroglobulin and thyroid hormone synthesis. CONCLUSIONS: Pleural fluid pigmentation may aid diagnosis in the appropriate clinical setting. A distinctive iodine-like brown colour of pleural fluid may represent elevated iodine content and should raise consideration of metastatic thyroid cancer as a cause for a pleural effusion.

[796]

TÍTULO / TITLE: - Fulminant hepatic failure and hepatomegaly caused by diffuse liver metastases from small cell lung carcinoma: 2 autopsy cases.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Respir Investig. 2013 Jun;51(2):98-102. doi: 10.1016/j.resinv.2012.12.004. Epub 2013 Feb 26.

●● Enlace al texto completo (gratis o de pago)

[1016/j.resinv.2012.12.004](#)

AUTORES / AUTHORS: - Sato K; Takeyama Y; Tanaka T; Fukui Y; Gonda H; Suzuki R

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RESUMEN / SUMMARY: - Fulminant hepatic failure (FHF) is defined as a liver disease that causes encephalopathy within 8 weeks of onset in the absence of pre-existing liver disease. Although liver metastases are commonly found in cancer patients, FHF secondary to diffuse liver infiltration is rare. Here, we report the rare autopsy cases of patients with small cell lung carcinoma (SCLC) and secondary FHF. These patients presented with remarkable hepatomegaly and a near complete replacement of the liver parenchyma with metastatic tumor. Neoplastic involvement of the liver should be considered in the differential diagnosis of FHF.

[797]

TÍTULO / TITLE: - Concomitant chemoradiotherapy with docetaxel and cisplatin followed by consolidation chemotherapy in locally advanced unresectable non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Ann Thorac Med. 2013 Apr;8(2):109-15. doi: 10.4103/1817-1737.109824.

●● Enlace al texto completo (gratis o de pago) [4103/1817-1737.109824](#)

AUTORES / AUTHORS: - Eroglu C; Orhan O; Unal D; Dogu GG; Karaca H; Dikilitas M; Ozturk A; Ozkan M; Kaplan B

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Erciyes University, School of Medicine, Kayseri, Turkey.

RESUMEN / SUMMARY: - **OBJECTIVES:** To evaluate treatment results and toxicities in patients who received concomitant chemoradiotherapy (CRT) followed by consolidation with docetaxel and cisplatin in locally advanced unresectable non-small cell lung cancer (NSCLC). **METHODS:** Ninety three patients were included in this retrospective study. The patients received 66 Gy radiotherapy and weekly 20 mg/m² docetaxel and 20 mg/m² cisplatin chemotherapy concomitantly. One month later than the end of CRT, consolidation chemotherapy with four cycles of docetaxel 75 mg/m² and cisplatin 75 mg/m² were administered at each 21 days. **RESULTS:** Median age of the patients was 57 (range, 30-74). Following concomitant CRT, 14 patients (15%) showed complete and 50 patients (54%) showed partial response (total response rate was 69%). The median follow-up was 13 months (range: 2-51 months). The median overall survival was 18 months (95% confidential interval [CI]: 13.8-22.1 months); local control was 15 months (95% CI: 9.3-20.6 months); progression-free survival was 9 months (95% CI: 6.5-11.4 months). Esophagitis in eight (9%) patients, neutropenia in seven (8%) patients and pneumonitis in eight (9%) patients developed as grade III-IV toxicity due to concomitant CRT. **CONCLUSION:** Concomitant CRT with docetaxel and cisplatin followed by docetaxel and cisplatin consolidation chemotherapy might be considered as a feasible, and well tolerated treatment modality with high response rates despite the fact that it has not a survival advantage in patients with locally advanced unresectable NSCLC.

[798]

TÍTULO / TITLE: - IL-23R is Epigenetically Regulated and Modulated by Chemotherapy in Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Front Oncol. 2013 Jun 19;3:162. doi: 10.3389/fonc.2013.00162. Print 2013.

●● Enlace al texto completo (gratis o de pago) [3389/fonc.2013.00162](#)

AUTORES / AUTHORS: - Baird AM; Dockry E; Daly A; Stack E; Doherty DG; O'Byrne KJ; Gray SG

INSTITUCIÓN / INSTITUTION: - Department of Clinical Medicine, Trinity College Dublin , Dublin , Ireland ; Thoracic Oncology Research Group, Institute of Molecular Medicine, St. James's Hospital , Dublin , Ireland.

RESUMEN / SUMMARY: - The Interleukin-23 (IL-23)/IL-23R signaling axis is an important inflammatory pathway, involved in the stimulation and regulation of the T helper (Th) 17 lymphocytes, resulting in the production of IL-17. Aside from auto-immunity, this cytokine has also been linked to carcinogenesis and polymorphisms in the IL-23R gene are associated with an increased risk for the development of a number of different cancers. Activation of the IL-23 pathway results in the up-regulation of STAT3 and it is thought that the pathological consequences associated with this are in part due to the production of IL-17. We have previously identified IL-23^a as pro-proliferative and epigenetically regulated in non-small cell lung cancer (NSCLC). The current study aims to evaluate IL-23R in greater detail in NSCLC. We demonstrate that IL-23R is expressed and epigenetically regulated in NSCLC through histone post-translation modifications and CpG island methylation. In addition, Gemcitabine treatment, a chemotherapy drug used in the treatment of NSCLC, resulted in the up-regulation of the IL-23R. Furthermore, Apilimod (STA 5326), a small molecule which blocks the expression of IL-23 and IL-12, reduced the proliferative capacity of NSCLC cells, particularly in the adenocarcinoma (A549) sub-type. Apilimod is currently undergoing investigation in a number of clinical trials for the treatment of auto-immune conditions such as Crohn's disease and Rheumatoid Arthritis. Our results may have implications for treating NSCLC patients with Gemcitabine or epigenetic targeted therapies. However, Apilimod may possibly provide a new treatment avenue for NSCLC patients. Work is currently ongoing to further delineate the IL-23/IL-23R axis in this disease.

[799]

TÍTULO / TITLE: - Antibody Conjugated PLGA Nanoparticles for Targeted Delivery of Paclitaxel Palmitate: Efficacy and Biofate in a Lung Cancer Mouse Model.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Small. 2013 Jul 21. doi: 10.1002/sml.201301417.

●● Enlace al texto completo (gratis o de pago) [1002/sml.201301417](#)

AUTORES / AUTHORS: - Karra N; Nassar T; Ripin AN; Schwob O; Borlak J; Benita S

INSTITUCIÓN / INSTITUTION: - The Institute for Drug Research, The School of Pharmacy, Faculty of Medicine, The Hebrew University of Jerusalem, POB 12065, Jerusalem, 91120, Israel.

RESUMEN / SUMMARY: - Aberrant signaling of the epidermal growth factor receptor (EGFR) is common to a variety of human cancers and is also found to be over-expressed in most cases of non-small cell lung cancer. For the development of a molecularly targeted therapy, cetuximab-conjugated nanoparticles (immunonanoparticles, INPs) are designed and loaded with the

lipophilic paclitaxel palmitate (pcpl) prodrug. Oleyl cysteineamide (OCA) is synthesized whereby its amphiphilic nature enables interfacial anchoring and thiol surface functionalization of PLGA NPs, facilitating bioconjugation to cetuximab by thioether bonds. It is demonstrated that the in vitro targeting efficiency and improved cellular internalization and cytotoxicity of this targeted delivery system in lung cancer cells over-expressing EGFR. A quantitative measure of the high binding affinity of INPs to EGFR is demonstrated using surface plasmon resonance. In vivo tolerability and enhanced efficacy of cetuximab pcpl INPs in a metastatic lung cancer model are reported. Its therapeutic efficacy in A549-luc-C8 lung tumors is shown using non-invasive bioluminescent imaging. Intravenous administration of cetuximab pcpl INPs to mice results in significantly higher inhibition of tumor growth and increased survival rates as compared to the non-targeted drug solution, drug-loaded nanoparticles or blank INPs. Pharmacokinetics and organ biodistribution of the prodrug and parent drug are evaluated by LC-MS/MS in lung tumor bearing mice. No enhanced total accumulation of nanoparticles or INPs is found at the tumor tissue. However, persistent pcpl levels with sustained conversion and release of paclitaxel are observed for the encapsulated prodrug possibly suggesting the formation of a drug reservoir. The overall results indicate the potential of this promising targeted platform for the improved treatment of lung cancer and other EGFR positive tumors.

[800]

TÍTULO / TITLE: - Platelet count predicts prognosis in operable non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Exp Ther Med. 2013 May;5(5):1351-1354. Epub 2013 Mar 12.

●● Enlace al texto completo (gratis o de pago) [3892/etm.2013.1003](#)

AUTORES / AUTHORS: - Yu D; Liu B; Zhang L; DU K

INSTITUCIÓN / INSTITUTION: - Departments of Radiology, Zhejiang Provincial Corps Hospital, Chinese People's Armed Police Force, Jiaxing, Zhejiang 314000, P.R. China.

RESUMEN / SUMMARY: - Platelets play a significant role in cancer cell growth, progression and metastasis. However, in non-small cell lung cancer (NSCLC), the association between a patient's platelet count and prognosis has not previously been fully elucidated. The aim of the present study was to investigate the correlation between platelet count, patients' characteristics and prognosis in patients with NSCLC. A total of 510 NSCLC patients were enrolled in the present study. The median platelet count in the NSCLC patients was $203 \times 10^9/l$ (95% CI, $115-358 \times 10^9/l$). The median platelet count in T3 and T4 patients was significantly higher than that of T1 and T2 patients (median, $263 \times 10^9/l$ and $253.5 \times 10^9/l$ vs. $199.5 \times 10^9/l$ and $196.5 \times 10^9/l$, respectively; $P < 0.001$). The 3-year cumulative overall survival (OS) probability was 75.3% for patients with

normal platelet counts and 59.2% for patients with elevated platelet counts. When compared with the patients with normal platelet counts, the patients with elevated platelet counts had an increased risk of disease progression (HR, 1.568; 95% CI, 1.015-2.453). Pre-operative platelet counts are a novel independent prognostic biomarker in operable NSCLC.

[801]

TÍTULO / TITLE: - Prognostic factors of tumor recurrence in completely resected non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Manag Res. 2013 Jun 6;5:77-84. doi: 10.2147/CMAR.S45642. Print 2013.

●● Enlace al texto completo (gratis o de pago) [2147/CMAR.S45642](#)

AUTORES / AUTHORS: - Tantraworasin A; Saeteng S; Lertprasertsuke N; Arreyakajohn N; Kasemsarn C; Patumanond J

INSTITUCIÓN / INSTITUTION: - General Thoracic Unit, Department of Surgery, Faculty of Medicine, Chiang Mai University Hospital, Chiang Mai, Thailand.

RESUMEN / SUMMARY: - BACKGROUND: Patients with completely resected non-small cell lung cancer (NSCLC) have an excellent outcome; however tumor recurs in 30%-77% of patients. This study retrospectively analyzed the clinicopathologic features of patients with any operable stage of NSCLC to identify the prognostic factors that influence tumor recurrence, including intratumoral blood vessel invasion (IVI), tumor size, tumor necrosis, and intratumoral lymphatic invasion. METHODS: From January 2002 to December 2011, 227 consecutive patients were enrolled in this study. They were divided into two groups: the "no recurrence" group and the "recurrence" group. Recurrence-free survival was analyzed by multivariable Cox regression analysis, stratified by tumor staging, chemotherapy, and nodal involvement. RESULTS: IVI, tumor necrosis, tumor diameter more than 5 cm, and nodal involvement were identified as independent prognostic factors of tumor recurrence. The hazard ratio (HR) of patients with IVI was 2.1 times higher than that of patients without IVI (95% confidence interval [CI]: 1.4-3.2) (P = 0.001). The HR of patients with tumor necrosis was 2.1 times higher than that of patients without tumor necrosis (95% CI: 1.3-3.4) (P = 0.001). Patients who had a maximum tumor diameter greater than 5 cm had significantly higher risk of recurrence than patients who had a maximum tumor diameter of less than 5 cm (HR 1.9, 95% CI: 1.0-3.5) (P = 0.033). CONCLUSION: IVI, tumor diameter more than 5 cm, and tumor necrosis are prognostic factors of tumor recurrence in completely resected NSCLC. Therefore, NSCLC patients, with or without nodal involvement, who have one or more prognostic factors of tumor recurrence may benefit from adjuvant chemotherapy for prevention of tumor recurrence.

[802]

TÍTULO / TITLE: - Lung Cancer Mortality among Uranium Gaseous Diffusion Plant Workers: A Cohort Study 1952-2004.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Occup Environ Med. 2013 Jul;4(3):128-40.

AUTORES / AUTHORS: - Figgs LW

INSTITUCIÓN / INSTITUTION: - Environmental Health Division, Douglas County Health Department, Omaha, NE, USA. lfiggs2@gmail.com.

RESUMEN / SUMMARY: - BACKGROUND: 9%-15% of all lung cancers are attributable to occupational exposures. Reports are disparate regarding elevated lung cancer mortality risk among workers employed at uranium gaseous diffusion plants. OBJECTIVE: To investigate whether external radiation exposure is associated with lung cancer mortality risk among uranium gaseous diffusion workers. METHODS: A cohort of 6820 nuclear industry workers employed from 1952 to 2003 at the Paducah uranium gaseous diffusion plant (PGDP) was assembled. A job-specific exposure matrix (JEM) was used to determine likely toxic metal exposure categories. In addition, radiation film badge dosimeters were used to monitor cumulative external ionizing radiation exposure. International Classification for Disease (ICD) codes 9 and 10 were used to identify 147 lung cancer deaths. Logistic and proportional hazards regression were used to estimate lung cancer mortality risk. RESULTS: Lung cancer mortality risk was elevated among workers who experienced external radiation >3.5 mrem and employment duration >12 years. CONCLUSION: Employees of uranium gaseous diffusion plants carry a higher risk of lung cancer mortality; the mortality is associated with increased radiation exposure and duration of employment.

[803]

TÍTULO / TITLE: - Lung cancer: Defining standard of care for performance status 2-don't rush.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Nat Rev Clin Oncol. 2013 Jul 23. doi: 10.1038/nrclinonc.2013.134.

●● Enlace al texto completo (gratis o de pago)

1038/nrclinonc.2013.134

AUTORES / AUTHORS: - Gridelli C

INSTITUCIÓN / INSTITUTION: - Division of Medical Oncology, "S. G. Moscati" Hospital, Citta Ospedaliera, 8 Contrada Amoretta, 83100 Avellino, Italy. cgridelli@libero.it.

[804]

TÍTULO / TITLE: - Overexpression of Integrin-linked Kinase Promotes Lung Cancer Cell Migration and Invasion via NF-kappaB-mediated Upregulation of Matrix Metalloproteinase-9.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Med Sci. 2013 Jun 14;10(8):995-1002. doi: 10.7150/ijms.5963. Print 2013.

●● Enlace al texto completo (gratis o de pago) 7150/ijms.5963

AUTORES / AUTHORS: - Zhao M; Gao Y; Wang L; Liu S; Han B; Ma L; Ling Y; Mao S; Wang X

INSTITUCIÓN / INSTITUTION: - 1. Department of Respiratory Medicine.

RESUMEN / SUMMARY: - Integrin-linked kinase (ILK) is a highly conserved serine-threonine protein kinase which has been implicated in the regulation of various cellular processes. Previously, we have demonstrated that overexpression of ILK correlates with malignant phenotype in non-small cell lung cancer. Furthermore, forced overexpression of ILK promotes lung cancer cell invasion and migration. However, the molecular mechanisms by which ILK enhances the invasive phenotype of lung cancer cells are still not fully understood. In the present study, we found that overexpression of ILK stimulated matrix metalloproteinase-9 (MMP-9) expression and activity in lung cancer cells. ILK-induced cell migration and invasion were significantly inhibited by MMP inhibitor doxycycline as well as by anti-MMP-9 neutralizing antibody. In addition, overexpression of ILK induced phosphorylation and nuclear translocation of nuclear factor-kappaB (NF-kappaB) subunit p65. Finally, upregulation of MMP-9 was severely abolished by either BAY 11-7028, a specific NF-kappaB inhibitor, or small interfering RNA targeted to NF-kappaB p65 in ILK overexpression cells. Taken together, these findings suggest that ILK promotes lung cancer cell migration and invasion via NF-kappaB-mediated upregulation of MMP-9.

[805]

TÍTULO / TITLE: - Cytokeratin 19, Carcinoembryonic Antigen, and Epithelial Cell Adhesion Molecule Detect Lung Cancer Lymph Node Metastasis in Endobronchial Ultrasound-Guided Transbronchial Aspiration Samples.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 22. pii: S1525-7304(13)00132-0. doi: 10.1016/j.clcc.2013.06.004.

●● Enlace al texto completo (gratis o de pago) 1016/j.clcc.2013.06.004

AUTORES / AUTHORS: - Bugalho A; Martins C; Dias SS; Nunes G; Silva Z; Correia M; Marques Gomes MJ; Videira PA

INSTITUCIÓN / INSTITUTION: - Chronic Diseases Research Center (CEDOC), Departamento de Imunologia, Faculdade de Ciencias Medicas, Universidade Nova de Lisboa, Lisbon, Portugal; Interventional Pulmonology Unit, Centro Hospitalar Lisboa Norte, Hospital Pulido Valente, Lisbon, Portugal; Interventional Pulmonology Unit, Hospital Beatriz Angelo, Loures, Portugal. Electronic address: antonio.bugalho@gmail.com.

RESUMEN / SUMMARY: - INTRODUCTION: Endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) holds promise for accurate examination of mediastinal lymph nodes in NSCLC patients. However, it is not

always possible to achieve a definitive diagnosis or subtype all cases. We aimed to evaluate the role of EBUS-TBNA combined with quantitative reverse transcription polymerase chain reaction (qRT-PCR) and flow cytometry (FCM) to assess tumor-associated antigens and immune responses to identify metastases and pathological patterns in lymph node aspirates. PATIENTS AND METHODS: EBUS-TBNA samples from patients with NSCLC (n = 33) and nonmalignant diseases (n = 17) were prospectively collected. Cytokeratin 19 (CK-19), carcinoembryonic antigen (CEA), epithelial cell adhesion molecule (EPCAM), sialyl-Lewisx, CD44, and the immune compartment were analyzed using qRT-PCR and FCM. RESULTS: In the NSCLC patients, the epithelial cell compartment was significantly increased (30.8% vs. 12% CD45- CK-19+ cells) and showed brighter CK-19 staining than controls (P = .039) using FCM. Carcinoembryonic antigen was exclusively expressed by the NSCLC epithelial compartment (35% of the cases) and absent in controls. The NSCLC immune compartment showed an increased monocyte population (P = .04), and decreased lymphocyte subpopulations, anticipating a disruption in the distribution of myeloid and lymphoid immune cells. Quantitative reverse transcription polymerase chain reaction showed that CK-19, CEA, and EPCAM transcripts were significantly higher in NSCLC. A positive correlation between the primary tumor lesion size and EPCAM ($\rho = 0.476$; P = .005), CK-19 ($\rho = 0.594$; P = .001), and CEA ($\rho = 0.394$; P = .023) was also found. CONCLUSION: The identification of CK-19, CEA, and EPCAM in EBUS-TBNA samples using FCM and qRT-PCR is feasible and might further aid in the detection of NSCLC lymph node metastasis.

[806]

TÍTULO / TITLE: - Comparison of autofluorescence imaging bronchoscopy and white light bronchoscopy for detection of lung cancers and precancerous lesions.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Patient Prefer Adherence. 2013 Jul 5;7:621-31. doi: 10.2147/PPA.S46749. Print 2013.

●● Enlace al texto completo (gratis o de pago) [2147/PPA.S46749](#)

AUTORES / AUTHORS: - Wang Y; Wang Q; Feng J; Wu Q

INSTITUCIÓN / INSTITUTION: - Respiratory Department of Tianjin Medical University General Hospital, Tianjin, People's Republic of China.

RESUMEN / SUMMARY: - BACKGROUND: The purpose of this paper was to compare the sensitivity, specificity, and overall diagnostic performance of autofluorescence imaging bronchoscopy (AFI) versus white light bronchoscopy (WLB) in the detection of lung cancers and precancerous lesions by meta-analysis. METHODS: We performed a literature search using the PubMed and EMBASE databases to identify studies published between March 1991 and March 2012. Article selection, quality assessment, and data extraction were then performed. The pooled sensitivity, specificity, diagnostic odds ratio, and

area under the curve of the summary receiver operating characteristic for AFI versus WLB were calculated using Stata version 12.0 software. RESULTS: Six studies were included in the meta-analysis. The pooled sensitivity of AFI and WLB was 0.89 (95% confidence interval [CI] 0.81-0.94) and 0.67 (95% CI 0.46-0.83) and the pooled specificity of AFI and WLB was 0.64 (95% CI 0.37-0.84) and 0.84 (95% CI 0.74-0.91), respectively. The diagnostic odds ratio for AFI and WLB was 14.5 (95% CI 3.76-55.63) and 10.9 (95% CI 3.12-38.21), and the area under the curve for AFI and WLB was 0.89 (95% CI 0.86-0.92) and 0.85 (95% CI 0.81-0.88), respectively. The pooled positive and negative likelihood ratios were 2.5 (95% CI 1.21-4.97) and 0.17 (95% CI 0.08-0.36) for AFI, and the corresponding values for WLB were 4.3 (95% CI 2.13-8.52) and 0.39 (95% CI 0.21-0.73). The pooled positive likelihood ratio for AFI and WLB was not higher than 10, and the pooled negative likelihood ratio for AFI and WLB was not lower than 0.1. CONCLUSION: The sensitivity of AFI is higher than that of WLB, while the specificity of AFI is lower than that of WLB. The overall diagnostic performance of AFI is slightly better than that of WLB in detecting lung cancers and precancerous lesions. AFI should find its place in routine bronchoscopic examination and may improve the diagnostic outcome on endoscopy.

[807]

TÍTULO / TITLE: - Prognostic value of the immune microenvironment in lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncoimmunology. 2013 May 1;2(5):e24036.

●● [Enlace al texto completo \(gratis o de pago\) 4161/onci.24036](#)

AUTORES / AUTHORS: - Kadota K; Nitadori JI; Adusumilli PS

INSTITUCIÓN / INSTITUTION: - Division of Thoracic Service; Department of Surgery; Memorial Sloan-Kettering Cancer Center; New York, NY USA ; Department of Diagnostic Pathology; Faculty of Medicine; Kagawa University; Kagawa, Japan.

RESUMEN / SUMMARY: - We analyzed the immune microenvironment in the neoplastic and stromal components of Stage I lung adenocarcinoma lesions, finding that a high ratio of tumor-infiltrating FOXP3+ regulatory T cells to CD3+ lymphocytes, an elevated expression of the interleukin-7 receptor, as well as a reduced expression of the interleukin-12 receptor beta2 all constitute independent factors of poor prognosis.

[808]

TÍTULO / TITLE: - Lack of Association of C-Met-N375S Sequence Variant with Lung Cancer Susceptibility and Prognosis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Med Sci. 2013 Jun 14;10(8):988-94. doi: 10.7150/ijms.5944. Print 2013.

●● Enlace al texto completo (gratis o de pago) 7150/ijms.5944

AUTORES / AUTHORS: - Shieh JM; Tang YA; Yang TH; Chen CY; Hsu HS; Tan YH; Salgia R; Wang YC

INSTITUCIÓN / INSTITUTION: - 1. Department of Chest Medicine, Chi Mei Medical Center, Tainan, Taiwan, R.O.C.; ; 2. Chang Jung Christian University;

RESUMEN / SUMMARY: - Background: Previously, we identified a sequence variant (N375S) of c-Met gene, however, its association with lung cancer risk and prognosis remain undefined. Patients and Methods: We investigated the genotype distribution of the c-Met-N375S sequence variant in 206 lung cancer patients and 207 non-cancer controls in the Taiwanese population by DNA sequencing. Results: Lung cancer patients with variant A/G and G/G genotypes showed 1.08-fold increased cancer risk when compared to patients with the wild-type A/A genotype (95% CI, 0.60-1.91). There were no significant differences in postoperative survival between c-Met-N375S and wild-type patients. In the cell model, the c-Met-N375S cells showed a decrease in cell death upon treatment with MET inhibitor SU11274 compared to wild-type cells. Conclusion: Our data suggest that the c-Met-N375S sequence variant may not play a significant role in cancer susceptibility and the prognosis of lung cancer patients. The correlation with chemoresponse of c-Met-N375S is worth further investigation in patients receiving MET therapy.

[809]

TÍTULO / TITLE: - Downregulation of EIF4A2 in Non-small-cell Lung Cancer Associates with Poor Prognosis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 15. pii: S1525-7304(13)00079-X. doi: 10.1016/j.clcc.2013.04.011.

●● Enlace al texto completo (gratis o de pago) 1016/j.clcc.2013.04.011

AUTORES / AUTHORS: - Shaoyan X; Juanjuan Y; Yalan T; Ping H; Jianzhong L; Qinian W

INSTITUCIÓN / INSTITUTION: - Department of Pathology, Sun Yat-sen University Cancer Center, Guangzhou, China.

RESUMEN / SUMMARY: - BACKGROUND: EIF4A2, which belongs to the eukaryotic initiation factor 4^a family, is a highly conserved gene for one of the protein-synthesis initiation factors involved in the binding of messenger RNA to the ribosome. The role of EIF4A2 in some cancers, eg, breast cancer and melanoma, has been studied. However, the clinical significance and biologic role of EIF4A2 in lung cancer remains unknown. PATIENTS AND METHODS: A total of 170 patients with non-small-cell lung cancer who were undergoing surgical resection were studied. We applied the tissue microarray by using immunohistochemistry to study the expression of EIF4A2 in patients with non-small-cell lung cancer (NSCLC). RESULTS: We found that the expression rate of EIF4A2 in NSCLC was 87.6%. The expression of EIF4A2 was significantly correlated with the histopathologic classification (P = .049) and tumor grade (P

< .019). Moreover, NSCLC patients with low EIF4A2 expression survived shorter than those with high EIF4A2 expression, as indicated by overall survival (P = .023) and disease-free survival (P = .011) assessed by the Kaplan-Meier method. In addition, multivariate analysis suggested EIF4A2 as an independent predictor of disease-free survival (hazard ratio 0.543 [95% CI, 0.329-0.897]; P = .017). CONCLUSION: Collectively, our study demonstrated that EIF4A2 was remarkably involvement in the development of NSCLC and could be served as a potential prognostic marker for patients with this deadly disease.

[810]

TÍTULO / TITLE: - Prognostic role of station 3^a mediastinal nodes for non-small-cell lung cancers.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Interact Cardiovasc Thorac Surg. 2013 Jun 19.

●● Enlace al texto completo (gratis o de pago) [1093/icvts/ivt265](#)

AUTORES / AUTHORS: - Zheng H; Gao W; Fei K; Xie HK; Jiang GN; Ding JA; Li C; Chen C; Zhang L

INSTITUCIÓN / INSTITUTION: - Department of General Thoracic Surgery, Tongji University School of Medicine, Shanghai, China.

RESUMEN / SUMMARY: - OBJECTIVE Station 3^a nodes have been commonly neglected in surgical practice. This retrospective study collected information on the incidence and risk factors of Station 3^a node to ascertain the prognostic role of 3^a nodal involvement. METHODS A total of 180 consecutive pN2 (stage IIIa) non-small-cell lung cancer (NSCLC) cases who underwent systemic lymphadenectomy and contained Station 3^a nodes were enrolled. Survival rates were calculated according to the final pathology of Station 3^a lymph node: Station 3^a node (+) and Station 3^a node (-). Statistical analysis was conducted using Kaplan-Meier and Cox regression models. RESULTS Station 3^a nodal metastasis was validated in 32 cases, and the incidence of Station 3^a node involvement was 17.8%. Station 3^a nodes involvement was strongly associated with the metastatic status of Station 4R nodes and histological nature of pulmonary cancer. The overall 3-year survival was 53% and median survival time was 40.6 months. The 3-year survival difference was significant between Station 3^a node (-) and Station 3^a node (+) (63 vs 22%, $\chi^2 = 16.426$, $P < 0.001$). Moreover, the overall 3-year survival was closely related with the number of involved nodal zones ($\chi^2 = 31.156$, $P < 0.001$). Multivariate analysis showed two statistically significant risk factors for survival including metastasis of Station 3^a node and the number of positive nodal zones (hazard ratios [HR]: 2.702; 95% confidence intervals [CI]: 1.008-7.242; $P = 0.027$; and HR: 7.404; 95% CI: 3.263-16.936, $P < 0.001$, respectively). CONCLUSION The involvement of Station 3^a lymph nodes predicts poor prognosis of right-sided stage pIIIa-N2 NSCLC patients. Therefore, systemic lymphadenectomy for right-sided cancers should include Station 3^a nodes when ascertaining a complete resection.

[811]

TÍTULO / TITLE: - Novel small molecule EGFR inhibitors as candidate drugs in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Onco Targets Ther. 2013 May 21;6:563-76. doi: 10.2147/OTT.S28155. Print 2013.

●● Enlace al texto completo (gratis o de pago) [2147/OTT.S28155](#)

AUTORES / AUTHORS: - Berardi R; Santoni M; Morgese F; Ballatore Z; Savini A; Onofri A; Mazzanti P; Pistelli M; Pierantoni C; De Lisa M; Caramanti M; Pagliaretta S; Pellei C; Cascinu S

INSTITUCIÓN / INSTITUTION: - Medical Oncology Unit, Università Politecnica delle Marche, Azienda Ospedaliero-Universitaria Ospedali Riuniti Umberto I - GM Lancisi - G Salesi, Ancona, Italy.

RESUMEN / SUMMARY: - In the last decade, better understanding of the role of epidermal growth factor receptor in the pathogenesis and progression of non-small cell lung cancer has led to a revolution in the work-up of these neoplasms. Tyrosine kinase inhibitors, such as erlotinib and gefitinib, have been approved for the treatment of non-small cell lung cancer, demonstrating an improvement in progression-free and overall survival, particularly in patients harboring activating EGFR mutations. Nevertheless, despite initial responses and long-lasting remissions, resistance to tyrosine kinase inhibitors invariably develops, most commonly due to the emergence of secondary T790M mutations or to the amplification of mesenchymal-epithelial transition factor (c-Met), which inevitably leads to treatment failure. Several clinical studies are ongoing (<http://www.clinicaltrials.gov>), aimed to evaluate the efficacy and toxicity of combined approaches and to develop novel irreversible or multitargeted tyrosine kinase inhibitors and mutant-selective inhibitors to overcome such resistance. This review is an overview of ongoing Phase I, II, and III trials of novel small molecule epidermal growth factor receptor inhibitors and combinations in non-small cell lung cancer patients.

[812]

TÍTULO / TITLE: - Overexpression of miRNA-21 promotes radiation-resistance of non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Radiat Oncol. 2013 Jun 19;8:146. doi: 10.1186/1748-717X-8-146.

●● Enlace al texto completo (gratis o de pago) [1186/1748-717X-8-146](#)

AUTORES / AUTHORS: - Xiao-Chun W; Wei W; Zhu-Bo Z; Jing Z; Xiao-Gang T; Jian-Chao L

INSTITUCIÓN / INSTITUTION: - Tianjin Key Laboratory of Molecular Nuclear Medicine, Institute of Radiation Medicine, Chinese Academy of Medical Science, Tianjin 300192, China. wxc3188@126.com.

RESUMEN / SUMMARY: - BACKGROUND: MiRNA-21 was previously reported to be up-regulated in many kinds of cancer. In the present study, we want to investigate the potential role of miRNA-21 in non-small cell lung cancer. MATERIALS AND METHODS: Expression of miRNA-21 was detected in 60 non-small cell lung cancer (NSCLC) samples and adjacent histologically normal tissue using RT-qPCR, Correlation between miRNA-21 expression and clinicopathological features of NSCLC was analyzed using statistical software. The effect of miRNA-21 expression on the growth and apoptosis of A549 cells induced by irradiation was examined. RESULTS: miRNA-21 expression increased in non-small cell lung cancer. Expression of miRNA-21 was positively associated with lymph node metastasis, clinical stage and poor prognosis. Multivariate Cox regression analysis showed that miRNA-21 was an independent prognostic factor for patients. Down-regulation of miRNA-21 inhibited proliferation and cell cycle progress of A549 cells and sensitized cells to radiation. Decreased miRNA-21 expression promoted the apoptosis of A549 cells induced by irradiation. CONCLUSIONS: miRNA-21 may be considered as a potential novel target for future development of specific therapeutic interventions in NSCLC.

[813]

TÍTULO / TITLE: - Primary pulmonary blastoma of monophasic variety- diagnosis and management.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cardiothorac Surg. 2013 Jun 7;8:144. doi: 10.1186/1749-8090-8-144.

●● Enlace al texto completo (gratis o de pago) [1186/1749-8090-8-144](#)

AUTORES / AUTHORS: - Mistry JH; Pawar SB; Mehta H; Popov AF; Mohite PN

INSTITUCIÓN / INSTITUTION: - University of Gottingen, Gottingen, Germany.

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RESUMEN / SUMMARY: - Pulmonary blastoma is a rare primary lung neoplasm, in that monophasic variety is far too rare. There are no specific clinical features seen for pulmonary blastoma; computed tomography and histopathology are diagnostic. Surgical excision is the treatment of choice; however, adjuvant chemotherapy and radiotherapy may be required in large and aggressive tumors.

[814]

TÍTULO / TITLE: - Prenatal diagnosis and postnatal findings of bronchogenic cyst.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Case Rep Pulmonol. 2013;2013:483864. doi: 10.1155/2013/483864. Epub 2013 May 23.

●● Enlace al texto completo (gratis o de pago) [1155/2013/483864](#)

AUTORES / AUTHORS: - Rios LT; Araujo Junior E; Nardoza LM; Moron AF; Martins Mda G

INSTITUCIÓN / INSTITUTION: - Gynecology and Obstetrics Service, University Hospital, Federal University of Maranhao (UFMA), Sao Luiz, MA, Brazil.

RESUMEN / SUMMARY: - Bronchogenic cysts arise from abnormal buds from the primitive esophagus and tracheobronchial tree, which do not extend to the site where alveolar differentiation occurs. Bronchogenic cysts are typically unilocular mucus field lesions arising from posterior membranous wall of the air way. The prenatal diagnosis usually is realized by two-dimensional ultrasound showing the large unilocular cystic image in the chest fetus. The prenatal percutaneous aspiration can reduce the risk of heart compression and permit better respiratory conditions to newborn. We present a case of a primiparous pregnant 23 year-old-woman prenatal ultrasound showed a large unilocular cyst in the left hemithorax with compression of the normal left lung tissue and contralateral mediastinal shift. This cyst was percutaneously aspirated without subsequent reaccumulation of fluid. The newborn did not have respiratory distress and the computed tomography scan confirmed the finding of a fluid-filled cyst in the left chest. The chest X-ray showed the displacement of the heart and the mediastinum from the left to the right. The prenatal diagnosis of bronchogenic cyst is very important to assess the degree of the compression of the normal lung and the mediastinum shift. Furthermore, the prenatal diagnosis permits planning delivery in the tertiary hospital with multidisciplinary team because of the risk of respiratory distress.

[815]

TÍTULO / TITLE: - Early lung cancer diagnosis by biosensors.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Mol Sci. 2013 Jul 25;14(8):15479-509. doi: 10.3390/ijms140815479.

●● Enlace al texto completo (gratis o de pago) [3390/ijms140815479](#)

AUTORES / AUTHORS: - Zhang Y; Yang D; Weng L; Wang L

INSTITUCIÓN / INSTITUTION: - Key Laboratory for Organic Electronics & Information Displays (KLOEID) and Institute of Advanced Materials (IAM), Nanjing University of Posts and Telecommunications, 9 Wenyuan Road, Nanjing 210023, China. iamlhwang@njupt.edu.cn.

RESUMEN / SUMMARY: - Lung cancer causes an extreme threat to human health, and the mortality rate due to lung cancer has not decreased during the last decade. Prognosis or early diagnosis could help reduce the mortality rate. If microRNA and tumor-associated antigens (TAAs), as well as the corresponding autoantibodies, can be detected prior to clinical diagnosis, such high sensitivity of biosensors makes the early diagnosis and prognosis of cancer realizable. This review provides an overview of tumor-associated biomarker identifying methods and the biosensor technology available today. Laboratorial researches utilizing biosensors for early lung cancer diagnosis will be highlighted.

[816]

TÍTULO / TITLE: - Nanovesicle-Based Bioelectronic Nose for the Diagnosis of Lung Cancer from Human Blood.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Adv Healthc Mater. 2013 Jul 18. doi: 10.1002/adhm.201300174.

●● Enlace al texto completo (gratis o de pago) [1002/adhm.201300174](#)

AUTORES / AUTHORS: - Lim JH; Park J; Oh EH; Ko HJ; Hong S; Park TH

INSTITUCIÓN / INSTITUTION: - School of Chemical and Biological Engineering, Bio-MAX Institute, Seoul National University, Seoul 151-742, Korea.

RESUMEN / SUMMARY: - A human nose-mimetic diagnosis system that can distinguish the odor of a lung cancer biomarker, heptanal, from human blood is presented. Selective recognition of the biomarker is mimicked in the human olfactory system. A specific olfactory receptor recognizing the chemical biomarker is first selected through screening a library of human olfactory receptors (hORs). The selected hOR is expressed on the membrane of human embryonic kidney (HEK)-293 cells. Nanovesicles containing the hOR on the membrane are produced from these cells, and are then used for the functionalization of single-walled carbon nanotubes. This strategy allows the development of a sensitive and selective nanovesicle-based bioelectronic nose (NvBN). The NvBN is able to selectively detect heptanal at a concentration as low as 1×10^{-14} M, a sufficient level to distinguish the blood of a lung cancer patient from the blood of a healthy person. In actual experiments, NvBN could detect an extremely small increase in the amount of heptanal from human blood plasma without any pretreatment processes. This result offers a rapid and easy method to analyze chemical biomarkers from human blood in real-time and to diagnose lung cancer.

[817]

TÍTULO / TITLE: - Analysis of Intratumor Heterogeneity of EGFR Mutations in Mixed Type Lung Adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jun 17. pii: S1525-7304(13)00072-7. doi: 10.1016/j.clcc.2013.04.005.

●● Enlace al texto completo (gratis o de pago) [1016/j.clcc.2013.04.005](#)

AUTORES / AUTHORS: - Tomonaga N; Nakamura Y; Yamaguchi H; Ikeda T; Mizoguchi K; Motoshima K; Doi S; Nakatomi K; Iida T; Hayashi T; Nagayasu T; Tsukamoto K; Kohno S

INSTITUCIÓN / INSTITUTION: - Second Department of Internal Medicine, Nagasaki University School of Medicine, Nagasaki, Japan.

RESUMEN / SUMMARY: - BACKGROUND: Epidermal growth factor receptor mutations are predictive of the success of EGFR tyrosine kinase inhibitor treatment in patients with advanced non-small-cell lung cancer. As with other solid tumors, lung cancer is thought to be the result of an accumulation of genetic alterations after exposure to carcinogens. The aim of the present study

was to clarify the relationship between multistep carcinogenesis and the accumulation of EGFR mutations. PATIENTS AND METHODS: The intratumor heterogeneity of EGFR mutations was analyzed in 38 patients with resected mixed-type lung adenocarcinoma according to histological patterns, and the clinical features of the patients harboring intratumor heterogeneity of EGFR mutations were evaluated. RESULTS: Intratumor heterogeneity of EGFR mutations was detected in 9 of 38 tumors. EGFR mutations were more common in the bronchioloalveolar (lepidic) carcinoma pattern than in the papillary and acinar patterns, although this difference was not significant. However, there was a significant correlation between intratumor heterogeneity of EGFR mutations and smoking history ($P < .043$). CONCLUSION: Intratumor heterogeneity of EGFR mutations correlates with the distribution of histological subtype in mixed type adenocarcinoma and is associated with smoking history.

[818]

TÍTULO / TITLE: - Further evidence for germline BAP1 mutations predisposing to melanoma and malignant mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Genet. 2013 May;206(5):206-10. doi: 10.1016/j.cancergen.2013.05.018.

●● Enlace al texto completo (gratis o de pago)

1016/j.cancergen.2013.05.018

AUTORES / AUTHORS: - Cheung M; Talarchek J; Schindeler K; Saraiva E; Penney LS; Ludman M; Testa JR

INSTITUCIÓN / INSTITUTION: - Cancer Biology Program, Fox Chase Cancer Center, Philadelphia, PA, USA.

RESUMEN / SUMMARY: - We describe a new family with a novel germline BAP1 nonsense mutation, c.723T>G, which leads to a predicted truncated protein, p.Y241*, or nonsense-mediated decay of the BAP1 mRNA. The proband had uveal melanoma (UM), and his paternal family has a remarkable history of multiple cancers. The proband's father had both pleural malignant mesothelioma (MM) and cutaneous melanoma (CM); a paternal uncle had lung cancer, CM, and UM; and a grandmother had CM. The findings in this family provide further support for the existence of a BAP1 cancer syndrome that predisposes to MM, various melanocytic neoplasms, and potentially other cancers. The fact that several members of the family manifested two or more different types of cancer suggests widespread BAP1-related tumor susceptibility targeting tissues of multiple organs. In addition, a review of BAP1 cancer syndrome families reported to date indicates that the location of the BAP1 mutation does not have any bearing on the spectrum of cancer types observed, either for mesothelial or melanocytic tumors.

[819]

TÍTULO / TITLE: - Lung Cancer Screening CT-Based Prediction of Cardiovascular Events.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - JACC Cardiovasc Imaging. 2013 Jun 8. pii: S1936-878X(13)00332-X. doi: 10.1016/j.jcmg.2013.02.008.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1016/j.jcmg.2013.02.008](#)

AUTORES / AUTHORS: - Mets OM; Vliegenthart R; Gondrie MJ; Viergever MA; Oudkerk M; de Koning HJ; Mali WP; Prokop M; van Klaveren RJ; van der Graaf Y; Buckens CF; Zanen P; Lammers JW; Groen HJ; Isgum I; de Jong PA

INSTITUCIÓN / INSTITUTION: - Department of Radiology, University Medical Center Utrecht, Utrecht, the Netherlands.

RESUMEN / SUMMARY: - **OBJECTIVES:** The aim of this study was to derive and validate a prediction model for cardiovascular events based on quantification of coronary and aortic calcium volume in lung cancer screening chest computed tomography (CT). **BACKGROUND:** CT-based lung cancer screening in heavy smokers is a very timely topic. Given that the heavily smoking screening population is also at risk for cardiovascular disease, CT-based screening may provide the opportunity to additionally identify participants at high cardiovascular risk. **METHODS:** Inspiratory screening CT of the chest was obtained in 3,648 screening participants. Next, smoking characteristics, patient demographics, and physician-diagnosed cardiovascular events were collected from 10 years before the screening CT (i.e., cardiovascular history) until 3 years after the screening CT (i.e., follow-up time). Cox proportional hazards analysis was used to derive and validate a prediction model for cardiovascular risk. Age, smoking status, smoking history, and cardiovascular history, together with automatically quantified coronary and aortic calcium volume from the screening CT, were included as independent predictors. The primary outcome measure was the discriminatory value of the model. **RESULTS:** Incident cardiovascular events occurred in 145 of 1,834 males (derivation cohort) and 118 of 1,725 males and 2 of 89 females (validation cohort). The model showed good discrimination in the validation cohort with a C-statistic of 0.71 (95% confidence interval: 0.67 to 0.76). When high risk was defined as a 3-year risk of 6% and higher, 589 of 1,725 males were regarded as high risk and 72 of 118 of all events were correctly predicted by the model. **CONCLUSIONS:** Quantification of coronary and aortic calcium volumes in lung cancer screening CT images-information that is readily available-can be used to predict cardiovascular risk. Such an approach might prove useful in the reduction of cardiovascular morbidity and mortality and may enhance the cost-effectiveness of CT-based screening in heavy smokers.

[820]

TÍTULO / TITLE: - Pathologic correlation of serum carcinoembryonic antigen and cytokeratin 19 fragment in resected nonsmall cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Korean J Thorac Cardiovasc Surg. 2013 Jun;46(3):192-6. doi: 10.5090/kjtcs.2013.46.3.192. Epub 2013 Jun 5.

●● Enlace al texto completo (gratis o de pago)

[5090/kjtcs.2013.46.3.192](#)

AUTORES / AUTHORS: - Lee S; Lee CY; Kim DJ; Hong DJ; Lee JG; Chung KY

INSTITUCIÓN / INSTITUTION: - Department of Thoracic and Cardiovascular Surgery, Yonsei University College of Medicine, Korea.

RESUMEN / SUMMARY: - BACKGROUND: This study focused on the association between preoperative serum carcinoembryonic antigen (CEA) and cytokeratin 19 fragment (Cyfra 21-1) levels and pathologic parameters in patients with resected non-small-cell lung cancer (NSCLC). MATERIALS AND METHODS: The records of 527 patients who underwent pulmonary resection of NSCLC were reviewed. The association between preoperative serum CEA and Cyfra 21-1 levels and variables that had p-values of less than 0.05 in a t-test or one-way analyses of variance was analyzed by multiple linear regression.

RESULTS: The mean serum CEA and Cyfra 21-1 levels prior to surgery were 6.8+/-23.1 mg/dL (range, 0.01 to 390.8 mg/dL) and 5.4+/-12.3 mg/dL (range, 0.65 to 140.2 mg/dL). The serum CEA levels were associated with tumor (T) and lymph node (N) stage and histology. The serum Cyfra 21-1 levels were associated with T stage, tumor size, and histology. Multiple linear regression indicated that serum CEA levels were associated with T (T3/4 vs. T1: beta=8.463, p=0.010) and N stage (N2/3 vs. N0: beta=9.208, p<0.001) and histology (adenocarcinoma vs. squamous cell: beta=6.838, p=0.001), and serum Cyfra 21-1 levels were associated with tumor size (beta=2.579, p<0.001) and histology (squamous cell vs. adenocarcinoma: beta=4.420, p=0.020). CONCLUSION: Serum CEA level was correlated with T and N stage, and Cyfra 21-1 with tumor size. CEA and Cyfra 21-1 showed histologic correlation. CEA is mainly elevated in adenocarcinoma and Cyfra 21-1 in squamous cell carcinoma. These results might be helpful for predicting pathologic status in preoperative NSCLC.

[821]

TÍTULO / TITLE: - Left main bronchus rupture during video-assisted thoracoscopic surgery resection of a bronchogenic cyst.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Rev Port Pneumol. 2013 Jul 26. pii: S0873-2159(13)00081-0. doi: 10.1016/j.rppneu.2013.05.003.

●● Enlace al texto completo (gratis o de pago)

[1016/j.rppneu.2013.05.003](#)

AUTORES / AUTHORS: - Pena E; Blanco M; Otero T

INSTITUCIÓN / INSTITUTION: - Vigo University, Clinical Hospital, Vigo, España.

RESUMEN / SUMMARY: - Video-assisted thoracoscopic surgery (VATS) is an approach to resection of bronchogenic cysts (BC) which is effective and viable.

There may be complications as a result of pericyclic adhesions to neighboring structures during dissection. This report describes an unusual case of an operative complication, the rupture of the main left bronchus. The initial VATS approach was converted into a right thoracotomy to remove the cyst and suture the bronchus once adequate exposure was obtained. Bronchus reconstruction failed and a few hours later, it was necessary to perform a left thoracotomy. A left pneumonectomy was required after the attempt to reconstruct the anastomosis was ruled out. The conclusion is that great care should be taken when using VATS approach for BC with adhesions.

[822]

TÍTULO / TITLE: - Hybrid Video-Assisted Thoracic Surgery With Segmental-Main Bronchial Sleeve Resection for Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Surg Innov. 2013 Jun 21.

●● Enlace al texto completo (gratis o de pago)

[1177/1553350613492026](#)

AUTORES / AUTHORS: - Li S; Chai H; Huang J; Zeng G; Shao W; He J

INSTITUCIÓN / INSTITUTION: - 1The First Affiliated Hospital of Guangzhou Medical College, Guangzhou, China.

RESUMEN / SUMMARY: - Background. The purpose of the current study is to present the clinical and surgical results in patients who underwent hybrid video-assisted thoracic surgery with segmental-main bronchial sleeve resection. Methods. Thirty-one patients, 27 men and 4 women, underwent segmental-main bronchial sleeve anastomoses for non-small cell lung cancer between May 2004 and May 2011. Results. Twenty-six (83.9%) patients had squamous cell carcinoma, and 5 patients had adenocarcinoma. Six patients were at stage IIB, 24 patients at stage IIIA, and 1 patient at stage IIIB. Secondary sleeve anastomosis was performed in 18 patients, and Y-shaped multiple sleeve anastomosis was performed in 8 patients. Single segmental bronchiole anastomosis was performed in 5 cases. The average time for chest tube removal was 5.6 days. The average length of hospital stay was 11.8 days. No anastomosis fistula developed in any of the patients. The 1-, 2-, and 3-year survival rates were 83.9%, 71.0%, and 41.9%, respectively. Conclusion. Hybrid video-assisted thoracic surgery with segmental-main bronchial sleeve resection is a complex technique that requires training and experience, but it is an effective and safe operation for selected patients.

[823]

TÍTULO / TITLE: - MiR-34^a/c-Dependent PDGFR-alpha/beta Downregulation Inhibits Tumorigenesis and Enhances TRAIL-Induced Apoptosis in Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 21;8(6):e67581. Print 2013.

- Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0067581](https://doi.org/10.1371/journal.pone.0067581)

AUTORES / AUTHORS: - Garofalo M; Jeon YJ; Nuovo GJ; Middleton J; Secchiero P; Joshi P; Alder H; Nazaryan N; Di Leva G; Romano G; Crawford M; Nana-Sinkam P; Croce CM

INSTITUCIÓN / INSTITUTION: - Department of Molecular Virology, Immunology and Medical Genetics, Comprehensive Cancer Center, the Ohio State University, Columbus, Ohio, United States of America.

RESUMEN / SUMMARY: - Lung cancer is the leading cause of cancer mortality in the world today. Although some advances in lung cancer therapy have been made, patient survival is still poor. MicroRNAs (miRNAs) can act as oncogenes or tumor-suppressor genes in human malignancy. The miR-34 family consists of tumor-suppressive miRNAs, and its reduced expression has been reported in various cancers, including non-small cell lung cancer (NSCLC). In this study, we found that miR-34^a and miR-34c target platelet-derived growth factor receptor alpha and beta (PDGFR-alpha and PDGFR-beta), cell surface tyrosine kinase receptors that induce proliferation, migration and invasion in cancer. MiR-34^a and miR-34c were downregulated in lung tumors compared to normal tissues. Moreover, we identified an inverse correlation between PDGFR-alpha/beta and miR-34^{a/c} expression in lung tumor samples. Finally, miR-34^{a/c} overexpression or downregulation of PDGFR-alpha/beta by siRNAs, strongly augmented the response to TNF-related apoptosis inducing ligand (TRAIL) while reducing migratory and invasive capacity of NSCLC cells.

[824]

TÍTULO / TITLE: - BAK and NOXA are critical determinants of mitochondrial apoptosis induced by bortezomib in mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 7;8(6):e65489. doi: 10.1371/journal.pone.0065489. Print 2013.

- Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0065489](https://doi.org/10.1371/journal.pone.0065489)

AUTORES / AUTHORS: - Busacca S; Chacko AD; Klabatsa A; Arthur K; Sheaff M; Gunasekharan VK; Gorski JJ; El-Tanani M; Broaddus VC; Gaudino G; Fennell DA

INSTITUCIÓN / INSTITUTION: - Department of Cancer Studies and Molecular Medicine, University of Leicester, Leicester, United Kingdom.

RESUMEN / SUMMARY: - Based on promising preclinical efficacy associated with the 20S proteasome inhibitor bortezomib in malignant pleural mesothelioma (MPM), two phase II clinical trials have been initiated (EORTC 08052 and ICORG 05-10). However, the potential mechanisms underlying resistance to this targeted drug in MPM are still unknown. Functional genetic analyses were conducted to determine the key mitochondrial apoptotic regulators required for bortezomib sensitivity and to establish how their dysregulation may confer

resistance. The multidomain proapoptotic protein BAK, but not its orthologue BAX, was found to be essential for bortezomib-induced apoptosis in MPM cell lines. Immunohistochemistry was performed on tissues from the ICORG-05 phase II trial and a TMA of archived mesotheliomas. Loss of BAK was found in 39% of specimens and loss of both BAX/BAK in 37% of samples. However, MPM tissues from patients who failed to respond to bortezomib and MPM cell lines selected for resistance to bortezomib conserved BAK expression. In contrast, c-Myc dependent transactivation of NOXA was abrogated in the resistant cell lines. In summary, the block of mitochondrial apoptosis is a limiting factor for achieving efficacy of bortezomib in MPM, and the observed loss of BAK expression or NOXA transactivation may be relevant mechanisms of resistance in the clinic.

[825]

TÍTULO / TITLE: - SAHA overcomes FLIP-mediated inhibition of SMAC mimetic-induced apoptosis in mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cell Death Dis. 2013 Jul 18;4:e733. doi: 10.1038/cddis.2013.258.

●● Enlace al texto completo (gratis o de pago) [1038/cddis.2013.258](#)

AUTORES / AUTHORS: - Crawford N; Stasik I; Holohan C; Majkut J; McGrath M; Johnston PG; Chessari G; Ward GA; Waugh DJ; Fennell DA; Longley DB

INSTITUCIÓN / INSTITUTION: - Centre for Cancer Research and Cell Biology, School of Medicine, Dentistry and Biomedical Science, Queen's University Belfast, Belfast, Northern Ireland, UK.

RESUMEN / SUMMARY: - Malignant pleural mesothelioma (MPM) is a highly pro-inflammatory malignancy that is rapidly fatal and increasing in incidence. Cytokine signaling within the pro-inflammatory tumor microenvironment makes a critical contribution to the development of MPM and its resistance to conventional chemotherapy approaches. SMAC mimetic compounds (SMCs) are a promising class of anticancer drug that are dependent on tumor necrosis factor alpha (TNFalpha) signaling for their activity. As circulating TNFalpha expression is significantly elevated in MPM patients, we examined the sensitivity of MPM cell line models to SMCs. Surprisingly, all MPM cell lines assessed were highly resistant to SMCs either alone or when incubated in the presence of clinically relevant levels of TNFalpha. Further analyses revealed that MPM cells were sensitized to SMC-induced apoptosis by siRNA-mediated downregulation of the caspase 8 inhibitor FLIP, an antiapoptotic protein overexpressed in several cancer types including MPM. We have previously reported that FLIP expression is potently downregulated in MPM cells in response to the histone deacetylase inhibitor (HDACi) Vorinostat (SAHA). In this study, we demonstrate that SAHA sensitizes MPM cells to SMCs in a manner dependent on its ability to downregulate FLIP. Although treatment with SMC in the presence of TNFalpha promoted interaction between caspase 8 and

the necrosis-promoting RIPK1, the cell death induced by combined treatment with SAHA and SMC was apoptotic and mediated by caspase 8. These results indicate that FLIP is a major inhibitor of SMC-mediated apoptosis in MPM, but that this inhibition can be overcome by the HDACi SAHA.

[826]

TÍTULO / TITLE: - APS8, a Polymeric Alkylpyridinium Salt Blocks $\alpha 7$ nAChR and Induces Apoptosis in Non-Small Cell Lung Carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mar Drugs. 2013 Jul 16;11(7):2574-94. doi: 10.3390/md11072574.

●● Enlace al texto completo (gratis o de pago) [3390/md11072574](#)

AUTORES / AUTHORS: - Zovko A; Viktorsson K; Lewensohn R; Kolosa K; Filipic M; Xing H; Kem WR; Paleari L; Turk T

INSTITUCIÓN / INSTITUTION: - Department of Biology, Biotechnical Faculty, University of Ljubljana, 1000 Ljubljana, Slovenia. tom.turk@bf.uni-lj.si.

RESUMEN / SUMMARY: - Naturally occurring 3-alkylpyridinium polymers (poly-APS) from the marine sponge *Reniera sarai*, consisting of monomers containing polar pyridinium and nonpolar alkyl chain moieties, have been demonstrated to exert a wide range of biological activities, including a selective cytotoxicity against non-small cell lung cancer (NSCLC) cells. APS8, an analog of poly-APS with defined alkyl chain length and molecular size, non-competitively inhibits $\alpha 7$ nicotinic acetylcholine receptors (nAChRs) at nanomolar concentrations that are too low to be acetylcholinesterase (AChE) inhibitory or generally cytotoxic. In the present study we show that APS8 inhibits NSCLC tumor cell growth and activates apoptotic pathways. APS8 was not toxic for normal lung fibroblasts. Furthermore, in NSCLC cells, APS8 reduced the adverse anti-apoptotic, proliferative effects of nicotine. Our results suggest that APS8 or similar compounds might be considered as lead compounds to develop antitumor therapeutic agents for at least certain types of lung cancer.

[827]

TÍTULO / TITLE: - BAD overexpression inhibits cell growth and induces apoptosis via mitochondrial-dependent pathway in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Cell Int. 2013 Jun 1;13(1):53. doi: 10.1186/1475-2867-13-53.

●● Enlace al texto completo (gratis o de pago) [1186/1475-2867-13-53](#)

AUTORES / AUTHORS: - Jiang L; Luo M; Liu D; Chen B; Zhang W; Mai L; Zeng J; Huang N; Huang Y; Mo X; Li W

INSTITUCIÓN / INSTITUTION: - Department of Respiratory Medicine, West China Hospital, Sichuan University, Chengdu 610041, P,R China.

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RESUMEN / SUMMARY: - BACKGROUND: The pro-apoptotic Bcl-2 protein BAD initiated apoptosis in human cells and has been identified as a prognostic marker in non-small cell lung cancer (NSCLC). In this study, we aimed to explore the functions of BAD in NSCLC. METHODS: Overexpression of BAD was performed by transfecting different NSCLC cell lines with wild-type BAD. Cell proliferation, cell cycle, apoptosis, and invasion were characterized in vitro. Tumorigenicity was analyzed in vivo. Western blot was performed to determine the effects of BAD overexpression on the Bcl-2 family proteins and apoptosis-related proteins. RESULTS: Overexpression of BAD significantly inhibited cell proliferation in H1299, H292, and SPC-A1 but not in SK-MES-1 and H460 cell lines in vitro. BAD overexpression also reduced the tumorigenicity of H1299/SPC-A1 cell in vivo. However, no appreciable effects on cell cycle distribution and invasion were observed in all these cell lines. BAD overexpression also induced apoptosis in all cell types, in which process expression of mitochondrial cytochrom c (cyto-c) and caspase 3 were increased, whereas Bcl-xl, Bcl-2, Bax and caspase 8 expressions did not change. These findings indicated that a mitochondrial pathway, in which process cyto-c was released from mitochondrial to activate caspase 3, was involved in BAD overexpression-mediated apoptosis. CONCLUSIONS: Our data suggested that increased expression of BAD enhance apoptosis and has negative influence on cell proliferation and tumor growth in NSCLC. Bad is a new potential target for tumor interventions.

[828]

TÍTULO / TITLE: - Definitive high-dose-rate endobronchial brachytherapy of bronchial stump for lung cancer after surgery.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Brachytherapy. 2013 Jul 11. pii: S1538-4721(13)00278-X. doi: 10.1016/j.brachy.2013.05.002.

●● Enlace al texto completo (gratis o de pago)

[1016/j.brachy.2013.05.002](#)

AUTORES / AUTHORS: - Skowronek J; Piorunek T; Kanikowski M; Chichel A; Bielecki G

INSTITUCIÓN / INSTITUTION: - Brachytherapy Department, Greater Poland Cancer Center, Poznan, Poland; Electroradiology Department, Poznan University of Medical Sciences, Poznan, Poland. Electronic address: janusz.skowronek1@gmail.com.

RESUMEN / SUMMARY: - PURPOSE: The aim of this work was to evaluate outcomes after definitive high-dose-rate endobronchial brachytherapy (HDR-BT) for lung cancer. METHODS AND MATERIAL: We treated 34 patients after surgery for lung cancer, without nodal or distant metastases, with HDR-BT. Two groups were analyzed, one with local recurrence in stump after prior surgery (n = 13) and a second with nonradical primary lobar resection found in histopathologically positive margins (n = 21). There were 27 men and 7 women

with a median age of 57.4 years. Twenty-five patients received sole brachytherapy with 4 fractions of 7.5 Gy and 9 received combined treatment consisting of 2 fractions of 6 Gy (HDR-BT) and 50 Gy from external beam radiotherapy. Overall survival time (OS) and overall disease-free survival time (OFS) were compared with prognostic factors. RESULTS: The complete local and radiologic response rate evaluated at the first month after HDR-BT was 73.5% (25/34). The partial response rate was 26.5%. OFS time in total group was 17.4 months; OS was 18.8 months. Differences were found in OS between both groups-primary tumor or recurrence (log-rank test, $p = 0.048$). Differences were not found according to gender ($p = 0.36$), clinical stage ($p = 0.76$), histopathology ($p = 0.93$), treatment dose ($p = 0.45$), sole or combined treatment ($p = 0.16$), or grade of remission in week 4 ($p = 0.15$). CONCLUSIONS: HDR-BT of a stump recurrence or after nonradical resection leads to a long-term OS rate in patients with localized lung cancer and could be considered curative. We found no correlations between OS and chosen clinical data; adjuvant HDR-BT gave better results.

[829]

TÍTULO / TITLE: - Partial removal of the pulmonary artery in video-assisted thoracic surgery for non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Biomed Res. 2013 Jul;27(4):310-7. doi: 10.7555/JBR.27.20120066. Epub 2013 Mar 10.

●● Enlace al texto completo (gratis o de pago) [7555/JBR.27.20120066](#)

AUTORES / AUTHORS: - Xu K; Zhang Z; Zhao J; Huang J; Yin R; Xu L

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Nanjing Medical University, Nanjing, Jiangsu 210029, China; ; Department of Thoracic Surgery, Huai'an First People's Hospital, Huai'an, Jiangsu 223300, China;

RESUMEN / SUMMARY: - Lobectomy with partial removal of the pulmonary artery in video-assisted thoracic surgery (VATS) currently remains a challenge for thoracic surgeons. We were interested in introducing pulmonary vessel blocking techniques in open thoracic surgery into video-assisted thoracic surgery (VATS) procedures. In this study, we reported a surgical technique simultaneously blocking the pulmonary artery and the pulmonary vein for partial removal of the pulmonary artery under VATS. Seven patients with non-small-cell lung cancer (NSCLC) received lobectomy with partial removal of the pulmonary artery using the technique between December 2007 and March 2012. Briefly, rather than using a small clamp on the distal pulmonary artery to the area of invading cancer, we replaced a vascular clamp with a ribbon and Hem-o-lock clip to block the preserved pulmonary veins so as to prevent back bleeding and yield a better view for surgeons. The mean occlusion time of the pulmonary artery and pulmonary veins were 44.0 ± 10.0 and 41.3 ± 9.7 minutes, respectively. The mean repair time of the pulmonary artery was 25.3 ± 13.7 minutes. No complications occurred. No patients showed abnormal blood flow through the

reconstructed vessel. There were no local recurrences on the pulmonary artery. In conclusion, the technique for blocking the pulmonary artery and veins is feasible and safe in VATS and reduces the risk of abrupt intraoperative bleeding and the chance of converting to open thoracotomy, and extends the indications of VATS lobectomy.

[830]

TÍTULO / TITLE: - Hoarseness caused by arytenoid dislocation after surgery for lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Gen Thorac Cardiovasc Surg. 2013 Jun 27.

●● Enlace al texto completo (gratis o de pago) [1007/s11748-013-0282-9](#)

AUTORES / AUTHORS: - Kurihara N; Imai K; Minamiya Y; Saito H; Takashima S; Kudo S; Kawaharada Y; Ogawa JI

INSTITUCIÓN / INSTITUTION: - Department of General Thoracic Surgery (Breast and Endocrine Surgery), Akita University Graduate School of Medicine, 1-1-1 Hondo, Akita, 010-8543, Japan.

RESUMEN / SUMMARY: - The patient was a 64-year-old woman with no history of laryngeal disorders. She underwent video-assisted right lower lobectomy and node dissection for lung cancer. Using a stylet while the patient was under general anesthesia, tracheal intubation with a 35-French gauge left-sided double-lumen endobronchial tube was successfully performed on the first attempt. The patient developed slight hoarseness on postoperative day 1, and we initially suspected recurrent laryngeal nerve paralysis caused by the surgery, which we elected to treat conservatively. However, because her hoarseness had not improved 4 months after surgery, we evaluated her vocal cords using laryngoscopy. This revealed severe dysfunction of the right vocal cord and arytenoid dislocation, which we treated through reduction using a balloon catheter. By 6 months, the patient's vocal cord mobility had improved. Arytenoid dislocation is a rare complication, but should be suspected when patients have right vocal fold paralysis after lung cancer surgery.

[831]

TÍTULO / TITLE: - Suitability of Computed Tomography-Guided Biopsy Specimens for Subtyping and Genotyping of Non-Small-Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jul 24. pii: S1525-7304(13)00130-7. doi: 10.1016/j.clcc.2013.06.002.

●● Enlace al texto completo (gratis o de pago) [1016/j.clcc.2013.06.002](#)

AUTORES / AUTHORS: - Hsiao SH; Chung CL; Lee CM; Chen WY; Chou YT; Wu ZH; Chen YC; Lin SE

INSTITUCIÓN / INSTITUTION: - Division of Pulmonary Medicine, Department of Internal Medicine, Taipei Medical University Hospital, Taipei, Taiwan.

RESUMEN / SUMMARY: - INTRODUCTION: Recent advances in the treatment of NSCLC highlight the importance of distinguishing NSCLC subtypes and genotypes. We aimed to determine whether histological specimens obtained from computed tomography (CT)-guided biopsy are suitable for specific subtyping and epidermal growth factor receptor (EGFR) analyses of NSCLC. PATIENTS AND METHODS: The clinicohistological data of 332 consecutive patients undergoing 352 CT-guided biopsies for lung lesions between January 2007 and December 2011 were retrospectively analyzed. Additionally, NSCLC specimens were examined for the suitability of EGFR mutational testing. RESULTS: Of 209 specimens diagnosed as NSCLC, 197 (94.3%) were specifically subtyped into adenocarcinoma (n = 164; 78.5%), squamous cell carcinoma (n = 27; 12.9%) and other subtypes (n = 6; 2.9%). The rate of NSCLC not otherwise specified (NOS) was 5.7%, and the diagnosis of NSCLC-NOS was significantly associated with the poor differentiation of cancer (adjusted odds ratio, 6.17; 95% confidence interval, 1.62-23.55; P = .008). Of 134 histological tumor specimens submitted for EGFR molecular testing, 132 (98.5%) were suitable for analyses, and 130 of them (98.5%) showed conclusive results, revealing 59.8% (n = 79) with EGFR exon mutation(s). The sensitivity, specificity, and positive and negative predictive values of CT-guided biopsy in patients with malignancy were 92.2%, 100%, 100%, and 74.1%, respectively. Six percent (n = 21) of total lung biopsies led to pneumothorax requiring chest drainage, and no procedure-related fatality was observed. CONCLUSION: Small tumor specimens obtained with CT-guided needle lung biopsy are suitable for specific subtyping and EGFR analyses of NSCLC, thus providing critical information for personalized therapy.

[832]

TÍTULO / TITLE: - Observer-independent nodule-detectability index for low-dose lung cancer screening CT: a pilot study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Radiol Phys Technol. 2013 Jul;6(2):492-9. doi: 10.1007/s12194-013-0225-2. Epub 2013 Jun 9.

●● Enlace al texto completo (gratis o de pago) [1007/s12194-013-0225-](#)

[2](#)

AUTORES / AUTHORS: - Ohkubo M; Wada S; Kanai S; Ishikawa K; Marasinghe JC; Matsumoto T

INSTITUCIÓN / INSTITUTION: - Graduate School of Health Sciences, Niigata University, 2-746 Asahimachi-dohri, Chuo-ku, Niigata, 951-8518, Japan.

RESUMEN / SUMMARY: - For the wide dissemination of lung cancer screening by low-dose computed tomography (CT), it is important to determine the optimal conditions for scan and image reconstruction based on objective standards of evaluation. Our aim in this study was to propose a quantitative index of nodule detectability without an observer test. It was essential to determine the apparent size and density of nodules visible on CT images for developing the nodule-

detectability index based on a statistical observer-independent method. Therefore, we introduced a computer simulation technique for CT images based on the spatial resolution of the system to evaluate the size and density accurately. By use of scan/reconstruction parameter settings as employed for low-dose CT screening, a detectability index was obtained for target nodules (ideal spheres) of various sizes and with varying contrast (DeltaCT) between nodule density and background density. The index was compared with the qualitative results of observer tests of nodule detectability. As the target nodule diameter or DeltaCT was increased, the index value increased, implying improved nodule visibility. According to the index, the detection limits for nodules with DeltaCTs of 70, 100, or 150 Hounsfield units were approximately 6, 5, and 4 mm in diameter, respectively. Index values were well correlated with nodule detectability as assessed by four observers. The proposed index was effective for quantifying nodule detectability, and its validity was confirmed by an observer test. This index has potential use in the determination of optimal scan/reconstruction parameters for lung cancer screening by low-dose CT without observer test.

[833]

TÍTULO / TITLE: - Screening: CT screening for lung cancer: winner confirmed.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Nat Rev Clin Oncol. 2013 Jul;10(7):367. doi: 10.1038/nrclinonc.2013.99. Epub 2013 Jun 11.

●● Enlace al texto completo (gratis o de pago) [1038/nrclinonc.2013.99](#)

AUTORES / AUTHORS: - Hutchinson L

[834]

TÍTULO / TITLE: - Celecoxib inhibits insulin-like growth factor 1 induced growth and invasion in non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncol Lett. 2013 Jun;5(6):1943-1947. Epub 2013 Mar 29.

●● Enlace al texto completo (gratis o de pago) [3892/ol.2013.1277](#)

AUTORES / AUTHORS: - Liu CH; Bao HG; Ge YL; Wang SK; Shen Y; Xu L

INSTITUCIÓN / INSTITUTION: - Departments of Anesthesiology, Affiliated Nanjing Hospital of Nanjing Medical University, Nanjing 210006, P.R. China.

RESUMEN / SUMMARY: - Despite a large number of studies indicating that celecoxib plays an important role in the prevention and treatment of tumors, the detailed molecular mechanisms are not well understood. The aim of the present study was to investigate the effect of celecoxib on insulin-like growth factor 1 (IGF-1)-induced growth and invasion in non-small cell lung cancer (NSCLC). For these experiments, IGF-1-induced cell growth and invasion were analyzed in A549 cells in the presence and absence of celecoxib. The effects of celecoxib on the expression of phosphorylated type-1 IGF receptor (IGF-1R) and phosphorylated AKT (p-AKT) were examined using western blot analysis. The

influence of celecoxib on IGF-binding protein-3 (IGFBP-3) expression was analyzed using ELISA. Celecoxib inhibited IGF-1-stimulated growth and invasion in a dose-dependent manner. Celecoxib also reduced the expression of IGF-1R, IGFBP-3 and phosphorylation of AKT. The results suggest that modulating the IGF axis may be a new mechanism for the anticancer effect of celecoxib on NSCLC.

[835]

TÍTULO / TITLE: - Mouse model resembling human lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncotarget. 2013 Jun;4(6):810-1.

AUTORES / AUTHORS: - Xiao Z; Jiang Q; Willette-Brown J; Hu Y

INSTITUCIÓN / INSTITUTION: - Laboratory of Experimental Immunology, Cancer and Inflammation Program, Center for Cancer Research, National Cancer Institute, Frederick Maryland.

[836]

TÍTULO / TITLE: - Mouse models of chemically-induced lung carcinogenesis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Front Biosci (Elite Ed). 2013 Jun 1;5:939-46.

AUTORES / AUTHORS: - Vikis HG; Rymaszewski AL; Tichelaar JW

INSTITUCIÓN / INSTITUTION: - Department of Pharmacology and Toxicology, Medical College of Wisconsin and MCW Cancer Center, Milwaukee, WI 53202, USA. hvikis@mcw.edu

RESUMEN / SUMMARY: - Primary pulmonary malignancies remain the major source of cancer-related deaths in the Western World. While surgical resection is an efficacious therapy for those with early stage disease, the majority of patients present with advanced malignancies and systemic treatments, such as cytotoxic chemotherapy, have only limited efficacy in lung cancer. Furthermore, chemoprevention for current or former smokers has demonstrated only limited success using available agents. The mouse model of primary lung carcinogenesis represents a very valuable tool for the study of tumor initiation, promotion, and therapy. Here we discuss several models of chemically-induced murine lung cancer with a specific emphasis on translational and clinically-relevant lines of investigation. We emphasize the pros and cons of currently available models in order to facilitate further investigations into the development and treatment of primary pulmonary malignancies.

[837]

TÍTULO / TITLE: - A Novel Minimally Invasive Technique to Create a Rabbit VX2 Lung Tumor Model for Nano-Sized Image Contrast and Interventional Studies.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 28;8(6):e67355. doi: 10.1371/journal.pone.0067355. Print 2013.

- Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0067355](https://doi.org/10.1371/journal.pone.0067355)

AUTORES / AUTHORS: - Anayama T; Nakajima T; Dunne M; Zheng J; Allen C; Driscoll B; Vines D; Keshavjee S; Jaffray D; Yasufuku K

INSTITUCIÓN / INSTITUTION: - Division of Thoracic Surgery, Department of Surgery, Toronto General Hospital, University of Toronto, University Health Network, Toronto, Canada.

RESUMEN / SUMMARY: - BACKGROUND: The rabbit VX2 lung cancer model is a large animal model useful for preclinical lung cancer imaging and interventional studies. However, previously reported models had issues in terms of invasiveness of tumor inoculation, control of tumor aggressiveness and incidence of complications. PURPOSE: We aimed to develop a minimally invasive rabbit VX2 lung cancer model suitable for imaging and transbronchial interventional studies. METHODS: New Zealand white rabbits and VX2 tumors were used in the study. An ultra-thin bronchoscope was inserted through a miniature laryngeal mask airway into the bronchus. Different numbers of VX2 tumor cells were selectively inoculated into the lung parenchyma or subcarinal mediastinum to create a uniform tumor with low incidence of complications. The model was characterized by CT, FDG-PET, and endobronchial ultrasound (EBUS). Liposomal dual-modality contrast agent was used to evaluate liposome drug delivery system in this model. RESULTS: Both peripheral and mediastinal lung tumor models were created. The tumor making success rate was 75.8% (25/33) in the peripheral lung tumor model and 60% (3/5) in the mediastinal tumor model. The group of 1.0×10^6 of VX2 tumor cells inoculation showed a linear growth curve with less incidence of complications. Radial probe EBUS visualized the internal structure of the tumor and the size measurement correlated well with CT measurements ($r(2) = 0.98$). Over 7 days of continuous enhancement of the lung tumor by liposomal contrast in the lung tumor was confirmed both CT and fluorescence imaging. CONCLUSION: Our minimally invasive bronchoscopic rabbit VX2 lung cancer model is an ideal platform for lung cancer imaging and preclinical bronchoscopic interventional studies.

[838]

TÍTULO / TITLE: - Glucosamine, a naturally occurring amino monosaccharide, inhibits A549 and H446 cell proliferation by blocking G1/S transition.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Med Rep. 2013 Sep;8(3):794-8. doi: 10.3892/mmr.2013.1584. Epub 2013 Jul 11.

- Enlace al texto completo (gratis o de pago) [3892/mmr.2013.1584](https://doi.org/10.3892/mmr.2013.1584)

AUTORES / AUTHORS: - Ju Y; Yu A; Sun X; Wu D; Zhang H

INSTITUCIÓN / INSTITUTION: - Department of Biochemistry and Molecular Biology, College of Basic Medical Sciences, China Medical University, Shenyang, Liaoning 110001, P.R. China.

RESUMEN / SUMMARY: - Uncontrolled proliferation is important in tumorigenesis. In the present study, the effects of glucosamine on lung cancer cell proliferation were investigated. The expression of cyclin E, one of the key cyclins in the G1/S transition, and Skp2, the ubiquitin ligase subunit that targets the negative cell cycle regulator, p27Kip1, were also assessed. Moreover, the underlying mechanisms of action of glucosamine were investigated in lung cancer cells. A549 and H446 cells were synchronized using thymidine in the presence or absence of glucosamine. The effect of glucosamine on lung cancer cell proliferation was determined by MTT assay. Cyclin E and p27Kip1 proteins and their phosphorylation levels were detected by western blot analysis. Furthermore, the effect of glucosamine on the cell cycle was evaluated by flow cytometry. Glucosamine was found to inhibit lung cancer cell proliferation and to suppress Skp2 and cyclin E expression. Notably, the phosphorylation levels of cyclin E (Thr62) and p27Kip1 (Thr187) were downregulated by glucosamine, and negatively correlated with degradation. Glucosamine was also found to arrest lung cancer cells in the G1/S phase. Thus, glucosamine may inhibit lung cancer cell proliferation by blocking G1/S transition through the inhibition of cyclin E and Skp2 protein expression.

[839]

TÍTULO / TITLE: - Video-assisted radiofrequency ablation for pleural disseminated non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - BMC Surg. 2013 Jun 13;13(1):19.

●● Enlace al texto completo (gratis o de pago) [1186/1471-2482-13-19](#)

AUTORES / AUTHORS: - Shen Y; Zhong M; Jiang W; Fan H; Wang H; Wang Q

RESUMEN / SUMMARY: - BACKGROUND: Clinically, some patients would have false-negative results in the diagnosis of non-small cell lung cancer (NSCLC) with pleural dissemination, losing their chances of prolonged survival from surgery. Hence, this study aimed to clarify the benefit of radiofrequency ablation (RFA) for NSCLC with malignant pleural dissemination that is detected during thoracoscopic lobectomy. METHODS: From July 2006, we started the application of RFA in combination with talc pleurodesis (R-TP) for pleural disseminated NSCLCs diagnosed by thoracoscopy. Patients who underwent TP alone (from December 30, 2005 to June 30, 2006) were retrospectively evaluated in compared with R-TP (from July 1, 2006 to June 30, 2008). Clinical features were collected and compared to identify the difference in clinical outcomes between R-TP and TP alone. After discharge (three months after surgery), tumor response to treatment was assessed, and follow-up results were recorded to determine the perioperative and mid-time survival difference between the two groups. RESULTS: In our study, the two groups were comparable in age, sex, performance status (PS) score, tumor location, and histological diagnosis. The incidence rate of intraoperative pleural dissemination was 5.98%, as diagnosed by video-assisted thoracoscopy. All the surgeries

were completed without conversion to open thoracotomy. Except for the longer operation duration in the R-TP group ($p < 0.001$), there was no significant difference between the two groups in terms of surgical features.

Postoperatively, no mortality occurred in either group during hospital stay; however, two patients from the R-TP group developed complications (9.52%). The complete and partial remission rates in the R-TP group were 80% and 10%, respectively, and the stabilization rate was 10%. After the three-year follow-up, the overall survival (OS) rates of the R-TP and TP groups were 14.29% and 0%, respectively. The median survival and median tumor progression-free survival (PFS) periods were longer in the R-TP group than in the TP group (OS: 19 months versus 12.5 months, $p = 0.045$; PFS: 9.5 months versus 5.5 months, $p = 0.028$). CONCLUSIONS: The introduction of RFA to TP offered survival benefits to pleural disseminated NSCLC patients, making it a potential alternative palliative treatment for local tumor. However, multicenter randomized controlled trials are required to confirm these findings.

[840]

TÍTULO / TITLE: - Thermal ablation of malignant lung tumors.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Dtsch Arztebl Int. 2013 May;110(22):394-400. doi: 10.3238/arztebl.2013.0394. Epub 2013 May 31.

●● Enlace al texto completo (gratis o de pago) [3238/arztebl.2013.0394](#)

AUTORES / AUTHORS: - Schneider T; Heussel CP; Herth FJ; Dienemann H

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, St. Vincentius-Kliniken Karlsruhe.

RESUMEN / SUMMARY: - BACKGROUND: About 50 000 new cases of non-small-cell carcinoma of the lung are diagnosed in Germany each year. More than 20% of the affected patients cannot be offered radical resection because of comorbidity alone. The lung is also the second most common site of distant metastases of extrathoracic tumors; it is the only site of such metastases in 20% of cases. In recent years, image-guided thermoablation has been used with increasing frequency in patients who are unable to undergo surgery for medical reasons. METHODS: The PubMed database was selectively searched for publications on the indications, complications, and results of the thermoablative techniques currently in clinical use, with special attention to radiofrequency ablation (RFA). RESULTS: There is only a small evidence base to date concerning the treatment of malignant lung tumors with thermoablation. Retrospective and prospective case series have been published, but no randomized controlled trials have yet been conducted. RFA, the most common technique, involves the image-guided percutaneous placement of one or more probes in the tumor, to which thermal energy is then applied. For peripherally located tumors that measure less than 3 cm in diameter, local control of tumor growth can be achieved in about 90% of cases. The long-term results that are now available from smaller series provisionally indicate 5-year survival rates of

20% to 61%. The most common complication is pneumothorax requiring drainage, which occurs in about 10% of cases. In the intermediate term, thermoablation does not cause any clinically relevant loss of pulmonary function. CONCLUSION: Image-guided thermoablation cannot now be considered an alternative to surgery for the treatment of malignant lung tumors with curative intent. It does, however, widen the spectrum of therapeutic options for patients who are medically unable to undergo a surgical procedure.

[841]

TÍTULO / TITLE: - Release behavior and toxicity profiles towards A549 cell lines of ciprofloxacin from its layered zinc hydroxide intercalation compound.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Chem Cent J. 2013 Jul 12;7(1):119.

●● Enlace al texto completo (gratis o de pago) [1186/1752-153X-7-119](#)

AUTORES / AUTHORS: - Abdul Latip AF; Hussein MZ; Stanslas J; Choon WC; Adnan R

RESUMEN / SUMMARY: - BACKGROUND: Layered hydroxides salts (LHS), a layered inorganic compound is gaining attention in a wide range of applications, particularly due to its unique anion exchange properties. In this work, layered zinc hydroxide nitrate (LZH), a family member of LHS was intercalated with anionic ciprofloxacin (CFX), a broad spectrum antibiotic via ion exchange in a mixture solution of water:ethanol. RESULTS: Powder x-ray diffraction (XRD), Fourier transform infrared (FTIR) and thermogravimetric analysis (TGA) confirmed the drug anions were successfully intercalated in the interlayer space of LZH. Specific surface area of the obtained compound was increased compared to that of the host due to the different pore textures between the two materials. CFX anions were slowly released over 80 hours in phosphate-buffered saline (PBS) solution due to strong interactions that occurred between the intercalated anions and the host lattices. The intercalation compound demonstrated enhanced antiproliferative effects towards A549 cancer cells compared to the toxicity of CFX alone. CONCLUSIONS: Strong host-guest interactions between the LZH lattice and the CFX anion give rise to a new intercalation compound that demonstrates sustained release mode and enhanced toxicity effects towards A549 cell lines. These findings should serve as foundations towards further developments of the brucite-like host material in drug delivery systems.

[842]

TÍTULO / TITLE: - Toxicity of Concurrent Radiochemotherapy for Locally Advanced Non-Small-Cell Lung Cancer: A Systematic Review of the Literature.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Lung Cancer. 2013 Jun 7. pii: S1525-7304(13)00061-2. doi: 10.1016/j.clcc.2013.03.002.

●● Enlace al texto completo (gratis o de pago) [1016/j.clcc.2013.03.002](#)

AUTORES / AUTHORS: - Koning CC; Wouterse SJ; Daams JG; Uitterhoeve LL; van den Heuvel MM; Belderbos JS

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Academic Medical Center (AMC), University of Amsterdam, Amsterdam, The Netherlands.

RESUMEN / SUMMARY: - Concurrent radiochemotherapy (RCT) is the treatment of choice for patients with locally advanced non-small-cell lung cancer (NSCLC). Two meta-analyses were inconclusive in an attempt to define the optimal concurrent RCT scheme. Besides efficacy, treatment toxicity will influence the appointed treatment of choice. A systematic review of the literature was performed to record the early and late toxicities, as well as overall survival, of concurrent RCT regimens in patients with NSCLC. The databases of PubMed, Ovid, Medline, and the Cochrane Library were searched for articles on concurrent RCT published between January 1992 and December 2009. Publications of phase II and phase III trials with ≥ 50 patients per treatment arm were selected. Patient characteristics, chemotherapy regimen (mono- or polychemotherapy, high or low dose) and radiotherapy scheme, acute and late toxicity, and overall survival data were compared. Seventeen articles were selected: 12 studies with cisplatin-containing regimens and 5 studies using carboplatin. A total of 13 series with mono- or polychemotherapy schedules-as single dose or double or triple high-dose or daily cisplatin-containing (≤ 30 mg/m²/wk) chemotherapy were found. Acute esophagitis \geq grade 3 was observed in up to 18% of the patients. High-dose cisplatin regimens resulted in more frequent and severe hematologic toxicity, nausea, and vomiting than did other schemes. The toxicity profile was more favorable in low-dose chemotherapy schedules. From phase II and III trials published between 1992 and 2010, it can be concluded that concurrent RCT with monochemotherapy consisting of daily cisplatin results in favorable acute and late toxicity compared with concurrent RCT with single high-dose chemotherapy, doublets, or triplets.

[843]

TÍTULO / TITLE: - Unique pulmonary antigen presentation may call for an alternative approach toward lung cancer immunotherapy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Oncoimmunology. 2013 Mar 1;2(3):e23563.

- Enlace al texto completo (gratis o de pago) [4161/onci.23563](#)

AUTORES / AUTHORS: - Chang S; Lin X; Higashikubo R; Toth K; Gelman AE; Kreisel D; Krupnick AS

INSTITUCIÓN / INSTITUTION: - Department of Surgery, Division of Cardiothoracic Surgery, Alvin Siteman Cancer Center and Department of Pathology and Immunology Washington University School of Medicine.

RESUMEN / SUMMARY: - Unlike other tumors, lung cancer appears to be poorly sensitive to immunotherapy. We have recently demonstrated an alternative pathway of lung cancer immunosurveillance. Our data indicate a failure of the

adaptive immune system to mediate the immunosurveillance of lung cancer and emphasize the prominent role of natural killer cells in this setting.

[844]

TÍTULO / TITLE: - Involvement of TRPC Channels in Lung Cancer Cell Differentiation and the Correlation Analysis in Human Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 28;8(6):e67637. doi: 10.1371/journal.pone.0067637. Print 2013.

●● Enlace al texto completo (gratis o de pago)

1371/journal.pone.0067637

AUTORES / AUTHORS: - Jiang HN; Zeng B; Zhang Y; Daskoulidou N; Fan H; Qu JM; Xu SZ

INSTITUCIÓN / INSTITUTION: - Department of Pulmonary Medicine, Zhongshan Hospital, School of Medicine, Fudan University, Shanghai, China ; Centre for Cardiovascular and Metabolic Research, Hull York Medical School, University of Hull, Hull, United Kingdom.

RESUMEN / SUMMARY: - The canonical transient receptor potential (TRPC) channels are Ca(2+)-permeable cationic channels controlling the Ca(2+) influx evoked by G protein-coupled receptor activation and/or by Ca(2+) store depletion. Here we investigate the involvement of TRPCs in the cell differentiation of lung cancer. The expression of TRPCs and the correlation to cancer differentiation grade in non-small cell lung cancer (NSCLC) were analyzed by real-time PCR and immunostaining using tissue microarrays from 28 patient lung cancer samples. The association of TRPCs with cell differentiation was also investigated in the lung cancer cell line A549 by PCR and Western blotting. The channel activity was monitored by Ca(2+) imaging and patch recording after treatment with all-trans-retinoic acid (ATRA). The expression of TRPC1, 3, 4 and 6 was correlated to the differentiation grade of NSCLC in patients, but there was no correlation to age, sex, smoking history and lung cancer cell type. ATRA upregulated TRPC3, TRPC4 and TRPC6 expression and enhanced Ca(2+) influx in A549 cells, however, ATRA showed no direct effect on TRPC channels. Inhibition of TRPC channels by pore-blocking antibodies decreased the cell mitosis, which was counteracted by chronic treatment with ATRA. Blockade of TRPC channels inhibited A549 cell proliferation, while overexpression of TRPCs increased the proliferation. We conclude that TRPC expression correlates to lung cancer differentiation. TRPCs mediate the pharmacological effect of ATRA and play important roles in regulating lung cancer cell differentiation and proliferation, which gives a new understanding of lung cancer biology and potential anti-cancer therapy.

[845]

TÍTULO / TITLE: - Overexpression of peptide deformylase in breast, colon, and lung cancers.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - BMC Cancer. 2013 Jul 1;13:321. doi: 10.1186/1471-2407-13-321.

●● Enlace al texto completo (gratis o de pago) [1186/1471-2407-13-321](#)

AUTORES / AUTHORS: - Randhawa H; Chikara S; Gehring D; Yildirim T; Menon J; Reindl KM

INSTITUCIÓN / INSTITUTION: - Department of Biological Sciences, North Dakota State University, Fargo, ND, USA.

RESUMEN / SUMMARY: - BACKGROUND: Human mitochondrial peptide deformylase (PDF) has been proposed as a novel cancer therapeutic target. However, very little is known about its expression and regulation in human tissues. The purpose of this study was to characterize the expression pattern of PDF in cancerous tissues and to identify mechanisms that regulate its expression. METHODS: The mRNA expression levels of PDF and methionine aminopeptidase 1D (MAP1D), an enzyme involved in a related pathway with PDF, were determined using tissue panels containing cDNA from patients with various types of cancer (breast, colon, kidney, liver, lung, ovarian, prostate, or thyroid) and human cell lines. Protein levels of PDF were also determined in 2 colon cancer patients via western blotting. Colon cancer cells were treated with inhibitors of ERK, Akt, and mTOR signaling pathways and the resulting effects on PDF and MAP1D mRNA levels were determined by qPCR for colon and lung cancer cell lines. Finally, the effects of a PDF inhibitor, actinonin, on the proliferation of breast, colon, and prostate cell lines were determined using the CyQUANT assay. RESULTS: PDF and MAP1D mRNA levels were elevated in cancer cell lines compared to non-cancer lines. PDF mRNA levels were significantly increased in breast, colon, and lung cancer samples while MAP1D mRNA levels were increased in just colon cancers. The expression of PDF and MAP1D varied with stage in these cancers. Further, PDF protein expression was elevated in colon cancer tissue samples. Inhibition of the MEK/ERK, but not PI3K or mTOR, pathway reduced the expression of PDF and MAP1D in both colon and lung cancer cell lines. Further, inhibition of PDF with actinonin resulted in greater reduction of breast, colon, and prostate cancer cell proliferation than non-cancer cell lines. CONCLUSIONS: This is the first report showing that PDF is over-expressed in breast, colon, and lung cancers, and the first evidence that the MEK/ERK pathway plays a role in regulating the expression of PDF and MAP1D. The over-expression of PDF in several cancers and the inhibition of cancer cell growth by a PDF inhibitor suggest this enzyme may act as an oncogene to promote cancer cell proliferation.

[846]

TÍTULO / TITLE: - Lung cancer epidemiology in North Sardinia, Italy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Multidiscip Respir Med. 2013 Jul 12;8(1):45. doi: 10.1186/2049-6958-8-45.

●● Enlace al texto completo (gratis o de pago) [1186/2049-6958-8-45](https://doi.org/10.1186/2049-6958-8-45)

AUTORES / AUTHORS: - Paliogiannis P; Attene F; Cossu A; Budroni M; Cesaraccio R; Tanda F; Trignano M; Palmieri G

INSTITUCIÓN / INSTITUTION: - Department of Surgical, Microsurgical and Medical Sciences, University of Sassari, V, le San Pietro 43B, 07100, Sassari, Italy. cossu@uniss.it.

RESUMEN / SUMMARY: - BACKGROUND: The aim of this study was to analyze and describe the epidemiological characteristics and trends of lung cancer in North Sardinia, Italy, in the period 1992-2010. METHODS: Data were obtained from the tumor registry of Sassari province which is a part of a wider registry web, coordinated today by the Italian Association for Tumor Registries. RESULTS: The overall number of lung cancer cases registered was 4,325. The male-to-female ratio was 4.6:1 and the mean age 68.1 years for males and 67 years for females. The standardized incidence rates were 73.1/100,000 and 13.5/100,000 and the standardized mortality rates 55.7/100,000 and 9.9/100,000 for males and females, respectively. An increasing trend in incidence of lung cancer in women was evidenced. Conversely, incidence was found to decrease in males. Relative survival at 5 years from diagnosis was low (8.8% for males and 14.9% for females). Furthermore, an increase in mortality rates was observed in both sexes in the period under investigation. CONCLUSIONS: Our data show an increasing trend of lung cancer incidence in women in North Sardinia in the last decades. Conversely, a reduction of incidence rates was observed in males. Furthermore, a slightly increasing trend in mortality rates was observed in both sexes, suggesting the need to enhance smoking control strategies, consider adoption of effective surveillance policies, and improve diagnosis and treatment methods.

[847]

TÍTULO / TITLE: - Epidemiology: Time to ESCAPE the city? Air pollution linked to lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Nat Rev Clin Oncol. 2013 Jul 23. doi: 10.1038/nrclinonc.2013.136.

●● Enlace al texto completo (gratis o de pago)

[1038/nrclinonc.2013.136](https://doi.org/10.1038/nrclinonc.2013.136)

AUTORES / AUTHORS: - Jones B

[848]

TÍTULO / TITLE: - Overexpression of a novel regulator of p120 catenin, NLBP, promotes lung adenocarcinoma proliferation.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cell Cycle. 2013 Jun 28;12(15).

AUTORES / AUTHORS: - Kim CH; Nam HS; Lee EH; Han SH; Cho HJ; Chung HJ; Lee NS; Choi SJ; Kim H; Ryu JS; Kwon J; Kim H

INSTITUCIÓN / INSTITUTION: - Department of Biological Sciences; Sungkyunkwan University; Suwon, Republic of Korea.

RESUMEN / SUMMARY: - NLBP (novel LZAP-binding protein) was recently shown to function as a tumor suppressor capable of inhibiting the NFkappaB signaling pathway. NLBP is also known as a negative regulator of cell invasion, and its expression is reduced in several cancer cell lines that have little invasive activity. Although these phenomena suggest that NLBP may be a potential tumor suppressor, its role as a tumor suppressor in human lung cancer is not well established. In contrast to our expectation, NLBP was highly expressed in the early stage of lung adenocarcinoma tissues, and overexpression of NLBP promoted proliferation of H1299 lung adenocarcinoma cells. We also found that p120 catenin (p120ctn) was a novel binding partner of NLBP, and that NLBP binds to the regulatory domain of p120ctn, and p120ctn associates with N-terminal region of NLBP, respectively. This binding leads to p120ctn stability to inhibit proteasomal degradation of p120ctn by inhibiting its ubiquitination. In addition, we also found that overexpression of NLBP and p120ctn in human lung cancer are closely related with adenocarcinoma compared with squamous cell carcinoma. Taken together, our findings reveal that NLBP is highly overexpressed in human lung adenocarcinoma, and that overexpression of NLBP promotes the cell proliferation of lung adenocarcinoma through interacting with p120ctn and suggest that NLBP may function as an oncogene in early stage carcinogenesis of lung adenocarcinoma.

[849]

TÍTULO / TITLE: - Endobronchial ultrasound in the management of nonsmall cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Eur Respir Rev. 2013 Jun 1;22(128):169-77. doi: 10.1183/09059180.00001113.

●● Enlace al texto completo (gratis o de pago)

[1183/09059180.00001113](#)

AUTORES / AUTHORS: - Doms C; Muylle I; Yserbyt J; Ninane V

INSTITUCIÓN / INSTITUTION: - Respiratory Division, University Hospitals Leuven, Leuven, Dept of Clinical and Experimental Medicine, KU Leuven, Leuven, Belgium.

RESUMEN / SUMMARY: - Flexible bronchoscopy plays a major role in the diagnosis and staging of lung cancer. One of the most important advances in this field is the development of endobronchial ultrasound (EBUS), which has extended the view of the bronchoscopist. These techniques are safe and allow assessment of the depth of tumour invasion in the central airways, detection of peripheral tumours before sampling, localisation of the central tumour in the lung parenchyma close to the central airways for real-time guided sampling,

and staging of lymph nodes within the mediastinum. Progress in handling and analyses of the small samples obtained during EBUS procedures also allow modern pathological and molecular studies to be performed. This article reviews the data currently available in the field of convex and radial probe EBUS for the diagnosis and staging of nonsmall cell lung cancer and highlights the strengths but also the weaknesses of these new techniques.

[850]

TÍTULO / TITLE: - Variants in phospholipid metabolism and upstream regulators and non-small cell lung cancer susceptibility.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Clin Transl Oncol. 2013 Jul 30.

- Enlace al texto completo (gratis o de pago) [1007/s12094-013-1080-7](#)

AUTORES / AUTHORS: - Cebrian A; Taron M; Sala N; Ardanaz E; Chirlaque MD; Larranaga N; Redondo ML; Sanchez MJ; Gomez Del Pulgar T; Camps C; Rosell R; Gonzalez CA; Lacal JC

INSTITUCIÓN / INSTITUTION: - Division of Translational Oncology, Health Research Institute and University Hospital Fundacion Jimenez Diaz, Madrid, España, arancha.cebrian@fjd.es.

RESUMEN / SUMMARY: - AIM: The relevance of the cytidine diphosphate-choline and Rho GTPases pathways in the pathogenesis of cancer has been previously demonstrated. We investigate by a case-control association study if genetics variants in these pathways are associated with risk of developing lung cancer. METHODS: Thirty-seven tag SNPs were evaluated as risk factor of NSCLC in 897 cases and 904 controls. RESULTS: Six SNPs were nominally associated with lung cancer risk, which were not significant after the Bonferroni correction for multiple comparisons. No association was observed with the remaining 31 analyzed SNPs, neither it was found significant in haplotype frequencies. CONCLUSIONS: Although the implication of the two pathways investigated in our study in carcinogenesis is well established, our null results suggest that common genetic variants in CDP-choline and Rho GTPases-related genes are not risk factors for lung cancer.

[851]

TÍTULO / TITLE: - Exploratory investigation of plasma metabolomics in human lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Mol Biosyst. 2013 Jul 30;9(9):2370-8. doi: 10.1039/c3mb70138g.

- Enlace al texto completo (gratis o de pago) [1039/c3mb70138g](#)

AUTORES / AUTHORS: - Wen T; Gao L; Wen Z; Wu C; Tan CS; Toh WZ; Ong CN

INSTITUCIÓN / INSTITUTION: - Saw Swee Hock School of Public Health, National University of Singapore, 16 Medical Drive, Singapore 117597, Singapore.
ephocn@nus.edu.sg.

RESUMEN / SUMMARY: - Globally lung cancer is common among males and recently also noted with increasing incidences in females, especially adenocarcinoma. Further, most lung cancers are not easily detected until the late stage. Metabolic profiling of plasma low molecular weight metabolites may help unveil the complex pathophysiological changes during early lung adenocarcinoma development. Here we used a combination of gas chromatography-mass spectrometry (GC-MS) and liquid chromatography-mass spectrometry (LC-MS) methods to investigate the metabolic signatures in the plasma of 31 stage I human lung adenocarcinoma patients and 28 healthy controls. The metabolic profiles were assayed using orthogonal projections to latent structures discriminant analysis (OPLS-DA), and were further analyzed to identify the associated marker metabolites. The OPLS-DA models derived from both GC-MS and LC-MS showed significant discriminations in metabolic profiles between cases and healthy controls. It was found that around 37 metabolites contributed to the differences. The alterations of these metabolites implied disturbances in amino acids, lipids, fatty acids and glutaminolysis metabolism in human lung adenocarcinoma, even after removal of influencing factors such as age, gender and smoking habits. Of particular interest, the sex hormone metabolic pathway involving the sulfate conjugate of testosterone, androsterone and pregnenolone was found to be disturbed considerably. All these metabolic perturbations occur at an early stage of lung adenocarcinoma and thus could act as biomarkers for its early diagnosis. These exploratory findings suggest that integration of two sensitive and complementary metabolomic approaches enables a comprehensive metabolite profiling for human lung adenocarcinoma, although a more extensive study is needed to confirm the findings.

[852]

TÍTULO / TITLE: - Reconstruction of an integrated genome-scale co-expression network reveals key modules involved in lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jul 11;8(7):e67552. doi: 10.1371/journal.pone.0067552. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0067552](https://doi.org/10.1371/journal.pone.0067552)

AUTORES / AUTHORS: - Bidkhorji G; Narimani Z; Hosseini Ashtiani S; Moeini A; Nowzari-Dalini A; Masoudi-Nejad A

INSTITUCIÓN / INSTITUTION: - Laboratory of Systems Biology and Bioinformatics (LBB), Institute of Biochemistry and Biophysics, University of Tehran, Tehran, Iran.

RESUMEN / SUMMARY: - Our goal of this study was to reconstruct a “genome-scale co-expression network” and find important modules in lung

adenocarcinoma so that we could identify the genes involved in lung adenocarcinoma. We integrated gene mutation, GWAS, CGH, array-CGH and SNP array data in order to identify important genes and loci in genome-scale. Afterwards, on the basis of the identified genes a co-expression network was reconstructed from the co-expression data. The reconstructed network was named "genome-scale co-expression network". As the next step, 23 key modules were disclosed through clustering. In this study a number of genes have been identified for the first time to be implicated in lung adenocarcinoma by analyzing the modules. The genes EGFR, PIK3CA, TAF15, XIAP, VAPB, App1, Rab5a, ARF4, CLPTM1L, SP4, ZNF124, LPP, FOXP1, SOX18, MSX2, NFE2L2, SMARCC1, TRA2B, CBX3, PRPF6, ATP6V1C1, MYBBP1A, MACF1, GRM2, TBXA2R, PRKAR2A, PTK2, PGF and MYO10 are among the genes that belong to modules 1 and 22. All these genes, being implicated in at least one of the phenomena, namely cell survival, proliferation and metastasis, have an over-expression pattern similar to that of EGFR. In few modules, the genes such as CCNA2 (Cyclin A2), CCNB2 (Cyclin B2), CDK1, CDK5, CDC27, CDCA5, CDCA8, ASPM, BUB1, KIF15, KIF2C, NEK2, NUSAP1, PRC1, SMC4, SYCE2, TFDP1, CDC42 and ARHGEF9 are present that play a crucial role in cell cycle progression. In addition to the mentioned genes, there are some other genes (i.e. DLGAP5, BIRC5, PSMD2, Src, TTK, SENP2, PSMD2, DOK2, FUS and etc.) in the modules.

[853]

TÍTULO / TITLE: - External Suction versus Water Seal after Selective Pulmonary Resection for Lung Neoplasm: A Systematic Review.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jul 9;8(7):e68087. doi: 10.1371/journal.pone.0068087. Print 2013.

●● Enlace al texto completo (gratis o de pago)

1371/journal.pone.0068087

AUTORES / AUTHORS: - Qiu T; Shen Y; Wang MZ; Wang YP; Wang D; Wang ZZ; Jin XF; Wei YC

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, The Affiliated Hospital of Medical College, Qingdao University, Qingdao, China.

RESUMEN / SUMMARY: - OBJECTIVE: To evaluate whether external suction is more advantageous than water seal in patients undergoing selective pulmonary resection (SPR) for lung neoplasm. SUMMARY OF BACKGROUND DATA: Whether external suction should be routinely applied in postoperative chest drainage is still unclear, particularly for lung neoplasm patients. To most surgeons, the decision is based on their clinical experience. METHODS: Randomized control trials were selected. The participants were patients undergoing SPR with lung neoplasm. Lung volume reduction surgery and pneumothorax were excluded. Suction versus non-suction for the intervention. The primary outcome was the incidence of persistent air leak (PAL). The

definition of PAL was air leak for more than 3-7 days. The secondary outcomes included air leak duration, time of drainage, postoperative hospital stay and the incidence of postoperative pneumothorax. Studies were identified from literature collections through screening. Bias was analyzed and meta-analysis was used. RESULTS: From the 1824 potentially relevant trials, 6 randomized control trials involving 676 patients were included. There was no difference between external suction and water seal in decreasing the incidence of PAL [95% confidence interval (CI) 0.81-2.16; $z = 1.10$; $P = 0.27$]. Regarding secondary outcomes, there were no differences in time of drainage (95% CI -0.36-1.56, $P = 0.22$), postoperative hospital stay (95% CI -.31-.54, $P = 0.87$) or incidence of postoperative pneumothorax (95% CI 0.18-.02, $P = 0.05$) between external suction and water seal. CONCLUSIONS: For participants, no differences are identified in terms of PAL incidence, drainage time, length of postoperative hospital stay or incidence of postoperative pneumothorax between external suction and water seal. The bias analysis should be emphasized. To the limitations of the bias and methodological differences among the included studies, we have no recommendation on whether external suction should be routinely applied after lung neoplasm SPR. More high-quality randomized controlled trials are needed. SYSTEMATIC REVIEW REGISTRATION: None.

[854]

TÍTULO / TITLE: - Non-small cell lung cancer, version 2.2013.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Natl Compr Canc Netw. 2013 Jun 1;11(6):645-53; quiz 653.

AUTORES / AUTHORS: - Ettinger DS; Akerley W; Borghaei H; Chang AC; Cheney RT; Chirieac LR; D'Amico TA; Demmy TL; Govindan R; Grannis FW Jr; Grant SC; Horn L; Jahan TM; Komaki R; Kong FM; Kris MG; Krug LM; Lackner RP; Lennes IT; Loo BW Jr; Martins R; Otterson GA; Patel JD; Pinder-Schenck MC; Pisters KM; Reckamp K; Riely GJ; Rohren E; Shapiro TA; Swanson SJ; Tauer K; Wood DE; Yang SC; Gregory K; Hughes M

INSTITUCIÓN / INSTITUTION: - Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, USA.

RESUMEN / SUMMARY: - These NCCN Guidelines Insights focus on the diagnostic evaluation of suspected lung cancer. This topic was the subject of a major update in the 2013 NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) for Non-Small Cell Lung Cancer. The NCCN Guidelines Insights focus on the major updates in the NCCN Guidelines and discuss the new updates in greater detail.

[855]

TÍTULO / TITLE: - Superior anticancer efficacy of curcumin-loaded nanoparticles against lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Acta Biochim Biophys Sin (Shanghai). 2013 Aug;45(8):634-40. doi: 10.1093/abbs/gmt063. Epub 2013 Jun 19.

●● Enlace al texto completo (gratis o de pago) 1093/abbs/gmt063

AUTORES / AUTHORS: - Yin H; Zhang H; Liu B

INSTITUCIÓN / INSTITUTION: - Nanjing University of Chinese Medicine, Nanjing 210023, China.

RESUMEN / SUMMARY: - Curcumin (CM) has anticancer potential for several cancers and blocks several steps in the carcinogenesis process. However, the clinical application of CM is greatly limited due to its low effects in vivo resulted from its poor solubility and pharmacokinetics. This raises the possibility of taking CM as a novel model drug in a new nanoparticle-based delivery system. In this study, CM-loaded nanoparticles were prepared from three kinds of amphiphilic methoxy poly(ethylene glycol) (mPEG)-polycaprolactone (PCL) block copolymers. It was noted that CM-loaded nanoparticles prepared from mPEG10k-PCL30k showed not only the highest loading efficiency, but also the most sustained release pattern. In vitro studies showed that CM was effectively transported into A549 cells by nanoparticles and localized around the nuclei in the cytoplasm. In addition, the cytotoxicity of CM-loaded nanoparticles with mPEG10k-PCL30k as a drug carrier was in a dose- and time-dependent manner in A549 cells. Further apoptotic staining results demonstrated the superior pro-apoptotic effect of CM-loaded nanoparticles over free drug. Data in this study not only confirmed the potential of CM in treating lung cancer, but also offered an effective way to improve the anticancer efficiency of CM through the nano-drug delivery system.

[856]

TÍTULO / TITLE: - Pulmonary CYP2A13 levels are associated with early occurrence of lung cancer-Its implication in mutagenesis of non-small cell lung carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Epidemiol. 2013 Jun 7. pii: S1877-7821(13)00070-2. doi: 10.1016/j.canep.2013.04.010.

●● Enlace al texto completo (gratis o de pago)

1016/j.canep.2013.04.010

AUTORES / AUTHORS: - Chiang HC; Lee H; Chao HR; Chiou YH; Tsou TC

INSTITUCIÓN / INSTITUTION: - Graduate Institute of Life Sciences, National Defense Medical Center, Taipei 114, Taiwan; Division of Environmental Health and Occupational Medicine, National Health Research Institutes, Zhunan, Miaoli 350, Taiwan.

RESUMEN / SUMMARY: - CYP2A13, a human pulmonary specific cytochrome P450 enzyme, plays an important role in susceptibility to tobacco-specific nitrosamines (TSNAs)-induced lung cancer in humans. The pattern of CYP2A13 distribution in respiratory tract affects the susceptibility of the lung to carcinogens. CYP2A13 is expressed in the epithelium of trachea and bronchi;

however its pattern of expression in human lung cancer remains largely unknown. This study aimed to determine the CYP2A13 expression in specimens from human non-small cell lung carcinomas (NSCLCs), i.e., adenocarcinoma and squamous carcinoma, by immunohistochemical (IHC) analysis and to identify the potential linkage between tumor CYP2A13 levels and some clinicopathological characteristics of NSCLC patients in Taiwan. The tumor CYP2A13 IHC staining signal was strong in 76% of the 112 study subjects. Study subjects (especially non-smoking or lung adenocarcinoma patients) with higher tumor CYP2A13 levels were younger. Multiple logistic regression analysis revealed that in younger subjects (age \leq 66) and heavy smokers (pack-years \geq 40), the odds ratio (OR) for positive tumor CYP2A13 staining was significantly higher than that for negative tumor CYP2A13 staining. Moreover, the association of EGFR gene mutations and positive tumor CYP2A13 staining was also revealed. In conclusion, these findings suggest the potential involvement of pulmonary CYP2A13 in the early occurrence of NSCLC as well as in the development of EGFR gene mutations.

[857]

TÍTULO / TITLE: - The continual search for ideal biomarkers for mesothelioma: the hurdles.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Dis. 2013 Jun;5(3):364-6. doi: 10.3978/j.issn.2072-1439.2013.04.19.

●● Enlace al texto completo (gratis o de pago) [3978/j.issn.2072-1439.2013.04.19](#)

AUTORES / AUTHORS: - Brims FJ; Lee YC; Creaney J

INSTITUCIÓN / INSTITUTION: - Respiratory Medicine, Sir Charles Gairdner Hospital, Perth, Australia;

[858]

TÍTULO / TITLE: - Primary human non-small cell lung and pancreatic tumorigraft models—utility and applications in drug discovery and tumor biology.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Curr Protoc Pharmacol. 2013 Jun;Chapter 14:Unit 14.26. doi: 10.1002/0471141755.ph1426s61.

●● Enlace al texto completo (gratis o de pago) [1002/0471141755.ph1426s61](#)

AUTORES / AUTHORS: - Calles A; Rubio-Viqueira B; Hidalgo M

INSTITUCIÓN / INSTITUTION: - Clinical Research Programme, Spanish National Cancer Research Centre-CNIO, Madrid, España.

RESUMEN / SUMMARY: - The number of therapeutic options for lung and pancreatic cancer is increasing because of the identification of new druggable molecular targets and development of new drug combinations. Reproducible, biologically relevant in vivo pre-clinical models are critical for this effort. The

generation of patient-derived tumor xenografts has proven useful for integrating drug screening with biomarker discovery, discovering fundamental information in tumor biology, prioritizing drugs for clinical investigation, and personalizing treatments for these tumors. The protocol described in this unit details how to establish a direct in vivo subcutaneous primary tumorgraft and maintenance passages. The predictive value of a tumorgraft platform to guide personalized medicine is illustrated with the case of a patient with refractory advanced non-small cell lung cancer (NSCLC). The outcome of a patient for whom their own pancreatic tumorgraft revealed a remarkable sensitivity to mitomycin C based on a PALB2 mutation is also detailed.

[859]

TÍTULO / TITLE: - Divergent human papillomavirus associated with recurrent respiratory papillomatosis with lung involvement.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Genome Announc. 2013 Jul 11;1(4). pii: e00474-13. doi: 10.1128/genomeA.00474-13.

- Enlace al texto completo (gratis o de pago) [1128/genomeA.00474-13](#)

[13](#)

AUTORES / AUTHORS: - Yuan H; Zhou D; Wang J; Schlegel R

INSTITUCIÓN / INSTITUTION: - Department of Pathology, Georgetown University Medical School, Washington, DC, USA.

RESUMEN / SUMMARY: - A divergent human papillomavirus (HPV), isolated from a lung lesion of a patient with recurrent respiratory papillomatosis, was fully cloned, sequenced, and genetically characterized. DNA analysis revealed that the HPV contained a 10.4-kb genome, with a duplication of 2,493 bp that includes partial L1-long control region (LCR)-E6-E7-partial E1 sequences.

[860]

TÍTULO / TITLE: - Fibulin-2 is a driver of malignant progression in lung adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 10;8(6):e67054. doi: 10.1371/journal.pone.0067054. Print 2013.

- Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0067054](#)

AUTORES / AUTHORS: - Baird BN; Schliekelman MJ; Ahn YH; Chen Y; Roybal JD; Gill BJ; Mishra DK; Erez B; O'Reilly M; Yang Y; Patel M; Liu X; Thilaganathan N; Larina IV; Dickinson ME; West JL; Gibbons DL; Liu DD; Kim MP; Hicks JM; Wistuba II; Hanash SM; Kurie JM

INSTITUCIÓN / INSTITUTION: - Department of Thoracic/Head and Neck Medical Oncology, University of Texas M D Anderson Cancer Center, Houston, Texas, United States of America.

RESUMEN / SUMMARY: - The extracellular matrix of epithelial tumors undergoes structural remodeling during periods of uncontrolled growth, creating regional heterogeneity and torsional stress. How matrix integrity is maintained in the face of dynamic biophysical forces is largely undefined. Here we investigated the role of fibulin-2, a matrix glycoprotein that functions biomechanically as an inter-molecular clasp and thereby facilitates supra-molecular assembly. Fibulin-2 was abundant in the extracellular matrix of human lung adenocarcinomas and was highly expressed in tumor cell lines derived from mice that develop metastatic lung adenocarcinoma from co-expression of mutant K-ras and p53. Loss-of-function experiments in tumor cells revealed that fibulin-2 was required for tumor cells to grow and metastasize in syngeneic mice, a surprising finding given that other intra-tumoral cell types are known to secrete fibulin-2. However, tumor cells grew and metastasized equally well in Fbln2-null and -wild-type littermates, implying that malignant progression was dependent specifically upon tumor cell-derived fibulin-2, which could not be offset by other cellular sources of fibulin-2. Fibulin-2 deficiency impaired the ability of tumor cells to migrate and invade in Boyden chambers, to create a stiff extracellular matrix in mice, to cross-link secreted collagen, and to adhere to collagen. We conclude that fibulin-2 is a driver of malignant progression in lung adenocarcinoma and plays an unexpected role in collagen cross-linking and tumor cell adherence to collagen.

[861]

TÍTULO / TITLE: - Hypopituitarism as the presenting feature of bronchogenic carcinoma with metastases to the pituitary gland.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Indian J Endocrinol Metab. 2013 Jan;17(1):167-9. doi: 10.4103/2230-8210.107876.

●● Enlace al texto completo (gratis o de pago) [4103/2230-](#)

[8210.107876](#)

AUTORES / AUTHORS: - Johnston PC; Black NR; McIlroy J; Sharkey R; Garvey A; Lindsay JR

INSTITUCIÓN / INSTITUTION: - Department of Endocrinology and Diabetes, Altnagelvin Area Hospital, Londonderry Belfast, United Kingdom.

RESUMEN / SUMMARY: - Tumours metastasizing to the pituitary gland are uncommon. Symptomatic patients with pituitary metastases can present with diabetes insipidus, headache, visual field defects and/or anterior pituitary hormonal dysfunction. Treatment options for pituitary metastases include, surgical resection, cranial or parasellar irradiation and/or chemotherapy, and hormonal replacement if indicated. The overall prognosis of pituitary metastases is poor. We present a case of hypopituitarism as the presenting feature of bronchogenic carcinoma with metastases to the pituitary gland.

[862]

TÍTULO / TITLE: - Bronchogenic cyst of the interatrial septum.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Cardiothorac Surg. 2013 Jul 9;8:171. doi: 10.1186/1749-8090-8-171.

●● Enlace al texto completo (gratis o de pago) [1186/1749-8090-8-171](#)

AUTORES / AUTHORS: - Jiang H; Wang H; Wu H; Li X

INSTITUCIÓN / INSTITUTION: - Department: Cardiovascular surgery, The Northern Hospital of Shenyang, No,83, Wenhua Road, Shenhe District, Shenyang, Liaoning Province 110016, China. jiangh33471@126.com

RESUMEN / SUMMARY: - Bronchogenic cyst is considered as an uncommon congenital anomaly. It can be mostly found in mediastinum or lung. Intracardiac bronchogenic cyst is very rare. We found 2 cases in more than 20000 cardiac surgical cases in our department. The 2 cases bronchogenic cyst arose from interatrial septum (IAS), the preoperative diagnosis were myxoma, but the histological diagnosis were bronchogenic cyst in both cases. Although it is very rare, it should be considered while intracardiac tumor is diagnosed. It is recommended to complete resection of any bronchogenic cyst for primarily diagnostic and potentially therapeutic reasons, and every effort should be made to prevent complications due to injury to nearby tissues.

[863]

TÍTULO / TITLE: - Pleural pressure swing and lung expansion after malignant pleural effusion drainage: the benefits of high-temporal resolution pleural manometry.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Bronchology Interv Pulmonol. 2013 Jul;20(3):200-5. doi: 10.1097/LBR.0b013e31829af168.

●● Enlace al texto completo (gratis o de pago)

[1097/LBR.0b013e31829af168](#)

AUTORES / AUTHORS: - Boshuizen RC; Sinaasappel M; Vincent AD; Goldfinger V; Farag S; van den Heuvel MM

INSTITUCIÓN / INSTITUTION: - Departments of *Thoracic Oncology daggerPhysics double daggerBiometrics, The Netherlands Cancer Institute section signFaculty of Medicine, University of Amsterdam, Amsterdam, The Netherlands.

RESUMEN / SUMMARY: - BACKGROUND: Malignant pleural effusion is a common complication in end-stage cancer patients and can cause severe dyspnea. Therapeutic thoracentesis is often limited to 1 to 1.5 L. Pleural manometry can be used to recognize a not-expanded lung. METHODS: Interval pleural pressure measurements with a high temporal resolution were performed after each removal of 200 mL of fluid to observe pleural pressure swings. Pleural elastance was defined as the difference in pleural pressure divided by the change in volume. Chest x-rays were performed to evaluate lung expansion, reexpansion pulmonary edema, and fluid residue. RESULTS: Thirty-four procedures in 30 patients were eligible for analysis. Four patients had

incomplete lung expansion after drainage. No reexpansion pulmonary edema was observed. Pleural pressure swing after 200 mL drainage was higher when the lung did not expand. Pleural elastance after removal of 500 mL was higher in the not-expanded subgroup. CONCLUSIONS: We demonstrated that a high pleural pressure swing after removal of only 200 mL was related to incomplete lung expansion. We confirmed the association between pleural elastance and lung expansion.

[864]

- CASTELLANO -

TÍTULO / TITLE: Korrelation des scheinbaren Diffusionskoeffizienten (ADC) mit dem "standardized uptake values" (SUV) bei nichtkleinzelligen Bronchiolarkarzinomen (NSCLC) in einem hybriden 18F-FDG-PET/MR.

TÍTULO / TITLE: - Correlation of the Apparent Diffusion Coefficient (ADC) with the Standardized Uptake Value (SUV) in Hybrid 18F-FDG PET/MRI in Non-Small Cell Lung Cancer (NSCLC) Lesions: Initial Results.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Rofo. 2013 Jul 16.

●● [Enlace al texto completo \(gratis o de pago\) 1055/s-0033-1350110](#)

AUTORES / AUTHORS: - Heusch P; Buchbender C; Kohler J; Nensa F; Beiderwellen K; Kuhl H; Lanzman RS; Wittsack HJ; Gomez B; Gauler T; Schuler M; Forsting M; Bockisch A; Antoch G; Heusner TA

INSTITUCIÓN / INSTITUTION: - Department of Diagnostic and Interventional Radiology, D-40225 Dusseldorf, Germany, Univ Dusseldorf, Medical Faculty, Dusseldorf.

RESUMEN / SUMMARY: - Purpose: To compare the apparent diffusion coefficient (ADC) in non-small cell lung cancer lesions with standardized uptake values (SUV) derived from combined 18F-fluoro-deoxy-glucose-positron emission tomography/magnetic resonance imaging (FDG-PET/MRI) and those derived from FDG-PET/CT. Materials and Methods: In 18 consecutive patients with histologically proven NSCLC (17 men, 1 woman; mean age, 61 +/- 12 years), whole-body FDG-PET/MRI was performed after whole-body FDG-PET/CT. Regions of interest (ROI) encompassing the entire primary tumor were drawn into FDG-PET/CT and FDG-PET/MR images to determine the maximum and mean standardized uptake value (SUV_{max}; SUV_{mean}) and into ADC parameter maps to assess mean ADC values. Pearson's correlation coefficients were calculated to compare SUV and ADC values. Results: The SUV_{max} of NSCLC was 12.3 +/- 4.8 [mean +/- SD], and the SUV_{mean} was 7.2 +/- 2.8 as assessed by FDG-PET/MRI. The SUV_{max} and SUV_{mean} derived from FDG-PET/CT and FDG-PET/MRI correlated well (R = 0.93; p < 0.001 and R = 0.92; p < 0.001, respectively). The ADC_{mean} of the pulmonary tumors was 187.9 +/- 88.8 x 10⁻⁵ mm²/s [mean +/- SD]. The ADC_{mean} exhibited a significant inverse correlation with the SUV_{max} (R = -0.72; p < 0.001) as well as with the

SUVmean assessed by FDG-PET/MRI ($R = -0.71$; $p < 0.001$). Conclusion: This simultaneous PET/MRI study corroborates the assumed significant inverse correlation between increased metabolic activity on FDG-PET and restricted diffusion on DWI in NSCLC. Citation Format:

[865]

TÍTULO / TITLE: - Mesothelioma among shipyard workers in Monfalcone, Italy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Indian J Occup Environ Med. 2012 Sep;16(3):119-23. doi: 10.4103/0019-5278.111753.

●● Enlace al texto completo (gratis o de pago) [4103/0019-5278.111753](#)

AUTORES / AUTHORS: - Bianchi C; Bianchi T

INSTITUCIÓN / INSTITUTION: - Center for the Study of Environmental Cancer, Italian League against Cancer, Monfalcone, Italy.

RESUMEN / SUMMARY: - BACKGROUND: The high mesothelioma incidence in Monfalcone, Italy, is mainly attributable to shipbuilding activity. Mesothelioma risk among shipyard workers in Monfalcone is poorly defined. MATERIALS AND METHODS: Workers hired at the Monfalcone shipyards in the period 1950-1959 were identified by surveying shipyard roll. The list of the workers was coupled with the archive data of Monfalcone and Trieste Hospitals. Mesotheliomas diagnosed in the above people were reexamined. RESULTS: Of 1,403 workers hired in 1950-1959, 35 were diagnosed with mesothelioma (34 pleural, one peritoneal) between 1978 and 2012. Latency periods exceeded 40 years in 31 cases. The highest percentage of mesotheliomas was observed among people aged 14-19 years at hiring time (3.4%). Four mesothelioma patients had a blood relative with the same tumor. CONCLUSIONS: The present findings show high mesothelioma percentage among shipyard workers hired at young ages. The effects of asbestos exposure begun in 1950-1959 cannot be considered as exhausted.

[866]

TÍTULO / TITLE: - Sialadenoma papilliferum of the tongue mimicking a malignant tumor.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Braz J Otorhinolaryngol. 2013 May-Jun;79(3):404. doi: 10.5935/1808-8694.20130071.

●● Enlace al texto completo (gratis o de pago) [5935/1808-8694.20130071](#)

AUTORES / AUTHORS: - dos Santos JN; Barros AC; Gurgel CA; Ramalho LM

INSTITUCIÓN / INSTITUTION: - Surgical Pathology Lab, Dentistry School, Federal University of Bahia, Brazil. jeanunes@ufba.br

[867]

TÍTULO / TITLE: - Is there still a role for mediastinoscopy as the first mediastinal staging procedure in lung cancer?

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J R Coll Physicians Edinb. 2013;43(2):137-43. doi: 10.4997/JRCPE.2013.211.

●● Enlace al texto completo (gratis o de pago) [4997/JRCPE.2013.211](#)

AUTORES / AUTHORS: - Waller D; Skwarski KM

INSTITUCIÓN / INSTITUTION: - Glenfield Hospital, Leicester LE3 9QP, UK.

David.waller@uhl-tr.nhs.uk

RESUMEN / SUMMARY: - Lung cancer staging has evolved with the advent of endobronchial and endoscopic ultrasound (EBUS and EUS) as an alternative to mediastinoscopy and other surgical staging techniques. This has led to the debate now as to what the first-line staging investigation should be. Mr Waller makes the case that although EBUS and EUS are welcomed staging techniques, mediastinoscopy still has an important role as the first-line staging investigation in specific scenarios (when there is potentially surgically resectable mediastinal disease). Dr Skwarski argues that EBUS and EUS should be used in conjunction with CT-PET and considered as a complete alternative to mediastinoscopy.

[868]

TÍTULO / TITLE: - Pulmonary tumor embolism syndrome from occult colonic adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Proc (Bayl Univ Med Cent). 2013 Jul;26(3):290-2.

AUTORES / AUTHORS: - Heithaus RE Jr; Hitchcock MA; Guileyardo JM

INSTITUCIÓN / INSTITUTION: - Departments of Radiology (Heithaus) and Pathology (Hitchcock, Guileyardo), Baylor University Medical Center at Dallas.

RESUMEN / SUMMARY: - Pulmonary tumor embolism syndrome is a rare phenomenon that can occur in patients who have an occult neoplasm that metastasizes. We describe a case of an elderly woman with an undiagnosed colon cancer who suffered from respiratory distress and compromised pulmonary blood flow from micrometastasis in the pulmonary arteries.

[869]

TÍTULO / TITLE: - MicroRNA-449^a is downregulated in non-small cell lung cancer and inhibits migration and invasion by targeting c-Met.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 May 29;8(5):e64759. doi: 10.1371/journal.pone.0064759. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0064759](#)

AUTORES / AUTHORS: - Luo W; Huang B; Li Z; Li H; Sun L; Zhang Q; Qiu X; Wang E

INSTITUCIÓN / INSTITUTION: - Department of Pathology, First Affiliated Hospital and College of Basic Medical Sciences, China Medical University, Shenyang, China.

RESUMEN / SUMMARY: - MicroRNA-449^a is expressed at a low level in several tumors and cancer cell lines, and induces G1 arrest, apoptosis, and senescence. To identify the function of miR-449^a in non-small cell lung cancer (NSCLC), we discussed the potential relevance of miR-449^a to clinicopathological characteristics and prognosis in NSCLC. We also investigated the impact of miR-449^a on migration and invasion in NSCLC cells. The expression of miR-449^a in NSCLC tissues and cell lines was detected using RT-qPCR. In vitro, gain-of-function, loss-of-function experiments, and fluorescence assays were performed to identify the potential target of miR-449^a and the function of miR-449^a in NSCLC cells. MiR-449^a was downregulated in both NSCLC tissues and cell lines. Moreover, a low expression level of miR-449^a appeared to be correlated with lymph node metastasis and poor survival. In vitro, miR-449 regulated cell migration and invasion in NSCLC cells as a potential tumor suppressor, at least in part by targeting c-Met. Furthermore, reciprocal expression of miR-449^a and c-Met was shown in NSCLC tissue samples. This study indicates that miR-449^a might be associated with NSCLC progression, and suggests a crucial role for miR-449^a in NSCLC.

[870]

TÍTULO / TITLE: - Lkb1 Loss Promotes Tumor Progression of BRAF(V600E)-Induced Lung Adenomas.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 25;8(6):e66933. doi: 10.1371/journal.pone.0066933. Print 2013.

●● Enlace al texto completo (gratis o de pago)

1371/journal.pone.0066933

AUTORES / AUTHORS: - Gonzalez-Sanchez E; Martin-Caballero J; Flores JM; Hernandez-Losa J; Cortes J; Mares R; Barbacid M; Recio JA

INSTITUCIÓN / INSTITUTION: - Animal Models and Cancer Laboratory, Anatomy Pathology Department, Vall d'Hebron Institut of Research-Autonomous University of Barcelona (VHIR-UAB) Barcelona, Barcelona, España.

RESUMEN / SUMMARY: - Aberrant activation of MAP kinase signaling pathway and loss of tumor suppressor LKB1 have been implicated in lung cancer development and progression. Although oncogenic KRAS mutations are frequent, BRAF mutations (BRAF(V600E)) are found in 3% of human non-small cell lung cancers. Contrary to KRAS mutant tumors, BRAF(V600E)-induced tumors are benign adenomas that fail to progress. Interestingly, loss of tumor suppressor LKB1 coexists with KRAS oncogenic mutations and synergizes in tumor formation and progression, however, its cooperation with BRAF(V600E) oncogene is unknown. Our results describe a lung cell population in neonates mice where expression of BRAF(V600E) leads to lung adenoma development.

Importantly, expression of BRAF(V600E) concomitant with the loss of only a single-copy of Lkb1, overcomes senescence-like features of BRAF(V600E)-mutant adenomas leading malignization to carcinomas. These results posit LKB1 haploinsufficiency as a risk factor for tumor progression of BRAF(V600E) mutated lung adenomas in human cancer patients.

[871]

TÍTULO / TITLE: - Glycoproteomic Analysis of Bronchoalveolar Lavage (BAL) Fluid Identifies Tumor-Associated Glycoproteins from Lung Adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Proteome Res. 2013 Aug 2;12(8):3689-96. doi: 10.1021/pr400274w. Epub 2013 Jul 11.

●● Enlace al texto completo (gratis o de pago) [1021/pr400274w](#)

AUTORES / AUTHORS: - Li QK; Shah P; Li Y; Aiyetan PO; Chen J; Yung R; Molena D; Gabrielson E; Askin F; Chan DW; Zhang H

INSTITUCIÓN / INSTITUTION: - Departments of Pathology, double daggerMedicine, and section signSurgery, The Johns Hopkins Medical Institutions , Baltimore, Maryland 21287, United States.

RESUMEN / SUMMARY: - Cytological examination of cells from bronchoalveolar lavage (BAL) is commonly used for the diagnosis of lung cancer. Proteins released from lung cancer cells into BAL may serve as biomarkers for cancer detection. In this study, N-glycoproteins in eight cases of BAL fluid, as well as eight lung adenocarcinoma tissues and eight tumor-matched normal lung tissues, were analyzed using the solid-phase extraction of N-glycoprotein (SPEG), iTRAQ labeling, and liquid chromatography tandem mass spectrometry (LC-MS/MS). Of 80 glycoproteins found in BAL specimens, 32 were identified in both cancer BAL and cancer tissues, with levels of 25 glycoproteins showing at least a 2-fold difference between cancer and benign BAL. Among them, eight glycoproteins showed greater than 2-fold elevations in cancer BAL, including Neutrophil elastase (NE), Integrin alpha-M, Cullin-4B, Napsin A, lysosome-associated membrane protein 2 (LAMP2), Cathepsin D, BPI fold-containing family B member 2, and Neutrophil gelatinase-associated lipocalin. The levels of Napsin A in cancer BAL were further verified in independently collected 39 BAL specimens using an ELISA assay. Our study demonstrates that potential protein biomarkers in BAL fluid can be detected and quantified.

[872]

TÍTULO / TITLE: - Integrated high-resolution array CGH and SKY analysis of homozygous deletions and other genomic alterations present in malignant mesothelioma cell lines.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Genet. 2013 May;206(5):191-205. doi: 10.1016/j.cancergen.2013.04.006. Epub 2013 Jul 5.

- Enlace al texto completo (gratis o de pago)

1016/j.cancergen.2013.04.006

AUTORES / AUTHORS: - Klorin G; Rozenblum E; Glebov O; Walker RL; Park Y; Meltzer PS; Kirsch IR; Kaye FJ; Roschke AV

INSTITUCIÓN / INSTITUTION: - Genetics Branch, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD, USA; Rambam Health Care Campus, Haifa, Israel.

RESUMEN / SUMMARY: - High-resolution oligonucleotide array comparative genomic hybridization (aCGH) and spectral karyotyping (SKY) were applied to a panel of malignant mesothelioma (MMt) cell lines. SKY has not been applied to MMt before, and complete karyotypes are reported based on the integration of SKY and aCGH results. A whole genome search for homozygous deletions (HDs) produced the largest set of recurrent and non-recurrent HDs for MMt (52 recurrent HDs in 10 genomic regions; 36 non-recurrent HDs). For the first time, LINGO2, RBF1/A2BP1, RPL29, DUSP7, and CCSE1/FAM190A were found to be homozygously deleted in MMt, and some of these genes could be new tumor suppressor genes for MMt. Integration of SKY and aCGH data allowed reconstruction of chromosomal rearrangements that led to the formation of HDs. Our data imply that only with acquisition of structural and/or numerical karyotypic instability can MMt cells attain a complete loss of tumor suppressor genes located in 9p21.3, which is the most frequently homozygously deleted region. Tetraploidization is a late event in the karyotypic progression of MMt cells, after HDs in the 9p21.3 region have already been acquired.

[873]

TÍTULO / TITLE: - Multiple distant muscular metastases from non-small cell lung carcinoma evidenced by F-FDG PET/CT.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Rev Esp Med Nucl. Acceso gratis al texto completo a partir de los 2 años de la fecha de publicación.

- Enlace a la Editora de la Revista <http://db.doyma.es/>

●● Cita: Revista Española de Medicina Nuclear: <> Imagen Mol. 2013 Jun 25. pii: S2253-654X(13)00077-2. doi: 10.1016/j.remn.2013.04.007.

- Enlace al texto completo (gratis o de pago)

1016/j.remn.2013.04.007

AUTORES / AUTHORS: - Caobelli F; Pizzocaro C; Guerra UP

INSTITUCIÓN / INSTITUTION: - Department of Nuclear Medicine, Fondazione Poliambulanza, Brescia, Italy. Electronic address: fedefournier@libero.it.

[874]

TÍTULO / TITLE: - Mesothelioma and anti-Ma paraneoplastic syndrome; heterogeneity in immunogenic tumours increases.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Pract Neurol. 2013 Jun 8.

●● Enlace al texto completo (gratis o de pago) [1136/practneurol-2013-000520](#)

AUTORES / AUTHORS: - Archer HA; Panopoulou A; Bhatt N; Edey AJ; Giffin NJ
INSTITUCIÓN / INSTITUTION: - Department of Neurosciences, Frenchay Hospital, Bristol, UK.

RESUMEN / SUMMARY: - We present a patient with opsoclonus and diffuse cerebellar signs who had an anti-Ma2 antibody-associated paraneoplastic syndrome secondary to a sarcomatoid mesothelioma. This case highlights the importance of early tumour detection, instigation of therapeutic measures, and the heterogeneity of underlying malignancies in neurological paraneoplastic syndromes.

[875]

- CASTELLANO -

TÍTULO / TITLE: Cribado del cancer de pulmon.

TÍTULO / TITLE: - Lung cancer screening.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Radiologia. 2013 Jul 4. pii: S0033-8338(13)00108-2. doi: 10.1016/j.rx.2013.04.002.

●● Enlace al texto completo (gratis o de pago) [1016/j.rx.2013.04.002](#)

AUTORES / AUTHORS: - Sanchez Gonzalez M

INSTITUCIÓN / INSTITUTION: - Servicio de Radiodiagnostico, Centro de Diagnostico por la Imagen Clinic (CDIC), Hospital Clinic, Barcelona, España. Electronic address: msanche@clinic.ub.es.

RESUMEN / SUMMARY: - Lung cancer is a very important disease, curable in early stages. There have been trials trying to show the utility of chest x-ray or computed tomography in Lung Cancer Screening for decades. In 2011, National Lung Screening Trial results were published, showing a 20% reduction in lung cancer mortality in patients with low dose computed tomography screened for three years. These results are very promising and several scientific societies have included lung cancer screening in their guidelines. Nevertheless we have to be aware of lung cancer screening risks, such as: overdiagnosis, radiation and false positive results. Moreover, there are many issues to be solved, including choosing the appropriate group to be screened, the duration of the screening program, intervals between screening and its cost-effectiveness. Ongoing trials will probably answer some of these questions. This article reviews the current evidence on lung cancer screening.

[876]

TÍTULO / TITLE: - Validation of EBUS-TBNA-integrated nodal staging in potentially node-positive non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Gen Thorac Cardiovasc Surg. 2013 Jun 9.

- Enlace al texto completo (gratis o de pago) [1007/s11748-013-0263-](https://doi.org/10.1371/journal.pone.0064821)

[Z](#)

AUTORES / AUTHORS: - Sakairi Y; Hoshino H; Fujiwara T; Nakajima T; Yasufuku K; Yoshida S; Yoshino I

INSTITUCIÓN / INSTITUTION: - Department of General Thoracic Surgery, Chiba University Graduate School of Medicine, 1-8-1, Inohana, Chiba, 260-8670, Japan, y_sakairi1@chiba-u.jp.

RESUMEN / SUMMARY: - **OBJECTIVE:** Nodal staging of lung cancer is important for selecting surgical candidates. Endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) was evaluated as a modality for nodal staging of patients with potentially node-positive non-small cell lung cancer (NSCLC). **METHODS:** Endobronchial ultrasound-guided transbronchial needle aspiration was used for nodal staging of NSCLC patients with radiological N2/3 disease (short axis >10 mm on computed tomography and/or standardized positron emission uptake value >2.5 on 2-deoxy-2[F-18] fluoro-D-glucose positron emission tomography), T-stage \geq T2, or positive serum carcinoembryonic antigen. Data on eligible patients were extracted from the database of our institution and analyzed for differences in nodal stages between radiological staging (RS) and EBUS-TBNA-integrated staging (ES), with validation by pathological staging of patients who had undergone surgery. **RESULTS:** Of 480 eligible patients, there were 135 N0/1 and 345 N2/3 patients according to RS. Out of the 345 patients staged as N2/3 by RS, 113 (33 %) were downgraded to N0/1 by ES. Out of the 135 patients staged as N0/1 by RS, 12 (9 %) were upgraded to N2/3 by ES. Patients were restaged as N0/1 in 236 cases and N2/3 in 244 cases by ES, and the distributions of nodal stage between RS and ES were significantly different ($p < 0.001$). Finally, 215 out of the 236 ES-N0/1 patients underwent lung resection, and 195 (90.7 %) and 20 patients were staged by pathology as N0/1 and N2, respectively. **CONCLUSIONS:** Endobronchial ultrasound-guided transbronchial needle aspiration is more accurate for lymph node staging compared to radiological staging. EBUS-TBNA can identify patients who are true candidates for surgery.

[877]

TÍTULO / TITLE: - Evaluation of ALK rearrangement in Chinese non-small cell lung cancer using FISH, immunohistochemistry, and real-time quantitative RT-PCR on paraffin-embedded tissues.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 May 31;8(5):e64821. doi: 10.1371/journal.pone.0064821. Print 2013.

- Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0064821](https://doi.org/10.1371/journal.pone.0064821)

AUTORES / AUTHORS: - Zhang YG; Jin ML; Li L; Zhao HY; Zeng X; Jiang L; Wei P; Diao XL; Li X; Cao Q; Tian XX

INSTITUCIÓN / INSTITUTION: - Department of Pathology, Beijing Chao-Yang Hospital, Capital Medical University, Beijing, P. R. China.

RESUMEN / SUMMARY: - Patients with ALK gene rearrangements often manifest dramatic responses to crizotinib, an ALK inhibitor. Accurate identification of patients with ALK-positive non-small cell lung cancer (NSCLC) is essential for the clinical application of ALK-targeted therapy. However, assessing EML4-ALK rearrangement in NSCLC remains challenging in routine pathology practice. The aim of this study was to compare the diagnostic accuracy of FISH, immunohistochemistry (IHC), and real-time quantitative RT-PCR (QPCR) methodologies for detection of EML4-ALK rearrangement in NSCLC and to appraise immunohistochemistry as a pre-screening tool. In this study, a total of 473 paraffin-embedded NSCLC samples from surgical resections and biopsies were analyzed by IHC with ALK antibody. ALK rearrangement was further confirmed by FISH and QPCR. ALK protein expression was detected in twenty patients (20/473, 4.2%). Of the 20 ALK-positive cases by IHC, 15 cases were further confirmed as ALK rearrangement by FISH, and 5 cases were not interpretable. Also, we evaluated 13 out of the 20 IHC-positive tissues by QPCR in addition to FISH, and found that 9 cases were positive and 2 cases were equivocal, whereas 2 cases were negative although they were positive by both IHC and FISH. The ALK status was concordant in 5 out of 8 cases that were interpretable by three methods. Additionally, none of the 110 IHC-negative cases with adenocarcinoma histology showed ALK rearrangements by FISH. Histologically, almost all the ALK-rearranged cases were adenocarcinoma, except that one case was sarcomatoid carcinoma. A solid signet-ring cell pattern or mucinous cribriform pattern was presented at least focally in all ALK-positive tumors. In conclusion, our findings suggested that ALK rearrangement was associated with ALK protein expression. The conventional IHC assay is a valuable tool for the pre-screening of patients with ALK rearrangement in clinical practice and a combination of FISH and QPCR is required for further confirmation.

PTPTPTP - Journal Article

[878]

TÍTULO / TITLE: - Cytosolic PhospholipaseA2 Inhibition with PLA-695 Radiosensitizes Tumors in Lung Cancer Animal Models.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jul 19;8(7):e69688. doi: 10.1371/journal.pone.0069688. Print 2013 Jul 22.

●● [Enlace al texto completo \(gratis o de pago\)](#)

1371/journal.pone.0069688

AUTORES / AUTHORS: - Thotala D; Craft JM; Ferraro DJ; Kotipatruni RP; Bhawe SR; Jaboin JJ; Hallahan DE

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Washington University in St. Louis, St. Louis, Missouri, United States of America ; Siteman

Cancer Center, Washington University in St. Louis, St. Louis, Missouri, United States of America.

RESUMEN / SUMMARY: - Lung cancer remains the leading cause of cancer deaths in the United States and the rest of the world. The advent of molecularly directed therapies holds promise for improvement in therapeutic efficacy. Cytosolic phospholipase A2 (cPLA2) is associated with tumor progression and radioresistance in mouse tumor models. Utilizing the cPLA2 specific inhibitor PLA-695, we determined if cPLA2 inhibition radiosensitizes non small cell lung cancer (NSCLC) cells and tumors. Treatment with PLA-695 attenuated radiation induced increases of phospho-ERK and phospho-Akt in endothelial cells. NSCLC cells (LLC and A549) co-cultured with endothelial cells (bEND3 and HUVEC) and pre-treated with PLA-695 showed radiosensitization. PLA-695 in combination with irradiation (IR) significantly reduced migration and proliferation in endothelial cells (HUVEC & bEND3) and induced cell death and attenuated invasion by tumor cells (LLC & A549). In a heterotopic tumor model, the combination of PLA-695 and radiation delayed growth in both LLC and A549 tumors. LLC and A549 tumors treated with a combination of PLA-695 and radiation displayed reduced tumor vasculature. In a dorsal skin fold model of LLC tumors, inhibition of cPLA2 in combination with radiation led to enhanced destruction of tumor blood vessels. The anti-angiogenic effects of PLA-695 and its enhancement of the efficacy of radiotherapy in mouse models of NSCLC suggest that clinical trials for its capacity to improve radiotherapy outcomes are warranted.

[879]

TÍTULO / TITLE: - The new kid on the block: RET in lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Discov. 2013 Jun;3(6):604-6. doi: 10.1158/2159-8290.CD-13-0174.

●● Enlace al texto completo (gratis o de pago) [1158/2159-8290.CD-13-0174](#)

AUTORES / AUTHORS: - Gainor JF; Shaw AT

INSTITUCIÓN / INSTITUTION: - Department of Medicine, Massachusetts General Hospital, Boston, MA 02114, USA.

RESUMEN / SUMMARY: - RET has recently been identified as a potential new oncogenic driver in a subset of patients with non-small cell lung cancer (NSCLC). In this issue of Cancer Discovery, Drilon and colleagues report preliminary trial data with a RET inhibitor in RET fusion-positive NSCLC, validating RET as a therapeutic target in lung cancer.

[880]

TÍTULO / TITLE: - Primary pericardial mesothelioma: a rare entity.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Case Rep Oncol Med. 2013;2013:283601. doi: 10.1155/2013/283601. Epub 2013 Jun 13.

●● Enlace al texto completo (gratis o de pago) [1155/2013/283601](https://doi.org/10.1155/2013/283601)

AUTORES / AUTHORS: - Godar M; Liu J; Zhang P; Xia Y; Yuan Q

INSTITUCIÓN / INSTITUTION: - Department of Radiology, Norman Bethune College of Medicine, The Second Hospital of Jilin University, 218 Ziqiang Street, Nanguan District, Changchun, Jilin 130041, China.

RESUMEN / SUMMARY: - Primary pericardial malignant mesothelioma is an extremely rare neoplasm that arises from the pericardial mesothelial cell layers. Clinical symptoms and signs are frequently nonspecific, and the diagnosis is usually made after surgery or at autopsy. There is no standard treatment for pericardial mesothelioma; nonetheless, radical surgery is the mainstay of therapy for localized disease. The neoplasm is highly aggressive and carries a dismal prognosis with an overall survival of less than six months. This paper presents a case study of a 68-year-old patient with a primary pericardial malignant mesothelioma. Radiologic evaluation revealed a small nodule in the posterior pericardium with pericardial and bilateral pleural effusions. The diagnosis was established after surgery by histological and immunohistochemical studies. The patient remained alive and free of disease for about 24 months; however, due to rapid local recurrence, the patient died 27 months after the surgical treatment.

[881]

TÍTULO / TITLE: - Primary small cell carcinoma of the vagina.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Case Rep Obstet Gynecol. 2013;2013:827037. doi: 10.1155/2013/827037. Epub 2013 Jun 25.

●● Enlace al texto completo (gratis o de pago) [1155/2013/827037](https://doi.org/10.1155/2013/827037)

AUTORES / AUTHORS: - Oliveira R; Bocoli MC; Saldanha JC; Murta EF; Nomelini RS

INSTITUCIÓN / INSTITUTION: - Research Institute of Oncology (IPON), Discipline of Gynecology and Obstetrics, Federal University of Triangulo Mineiro (UFTM), Avenida Getulio Guarita 214, 38025-440 Uberaba, MG, Brazil.

RESUMEN / SUMMARY: - The primary small cell carcinoma of the vagina is rare, and it is a highly aggressive malignancy with no consensus regarding the treatment of this tumor. The survival rate for patients treated in the early stages is around two years. We related the case report of a patient of 41 years with a vegetative and necrotic lesion in left vaginal wall, in middle and upper third, and involvement of parametrium in its proximal third and medium third. A biopsy showed a small cell undifferentiated carcinoma composed of epithelial cells with round nuclei, oval or elongated, hyperchromatic nuclei, with little distinct nucleoli, and scarce cytoplasm. Immunohistochemistry showed positivity for AE1/AE3, CD57, and chromogranin A. The patient received 6 cycles of chemotherapy with cisplatin and etoposide and radiotherapy, achieving

complete response, with complete regression of the lesion. The patient had no sign of tumor recurrence and locoregional or distant metastases after 5 months of followup.

[882]

TÍTULO / TITLE: - Pathway-based analysis using genome-wide association data from a Korean non-small cell lung cancer study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 6;8(6):e65396. doi: 10.1371/journal.pone.0065396. Print 2013.

●● [Enlace al texto completo \(gratis o de pago\)](#)

[1371/journal.pone.0065396](https://doi.org/10.1371/journal.pone.0065396)

AUTORES / AUTHORS: - Lee D; Lee GK; Yoon KA; Lee JS

INSTITUCIÓN / INSTITUTION: - Lung Cancer Branch, Research Institute and Hospital, National Cancer Center, Gyeonggi, Republic of Korea.

RESUMEN / SUMMARY: - Pathway-based analysis, used in conjunction with genome-wide association study (GWAS) techniques, is a powerful tool to detect subtle but systematic patterns in genome that can help elucidate complex diseases, like cancers. Here, we stepped back from genetic polymorphisms at a single locus and examined how multiple association signals can be orchestrated to find pathways related to lung cancer susceptibility. We used single-nucleotide polymorphism (SNP) array data from 869 non-small cell lung cancer (NSCLC) cases from a previous GWAS at the National Cancer Center and 1,533 controls from the Korean Association Resource project for the pathway-based analysis. After mapping single-nucleotide polymorphisms to genes, considering their coding region and regulatory elements (+/-20 kbp), multivariate logistic regression of additive and dominant genetic models were fitted against disease status, with adjustments for age, gender, and smoking status. Pathway statistics were evaluated using Gene Set Enrichment Analysis (GSEA) and Adaptive Rank Truncated Product (ARTP) methods. Among 880 pathways, 11 showed relatively significant statistics compared to our positive controls (PGSEA ≤ 0.025 , false discovery rate ≤ 0.25). Candidate pathways were validated using the ARTP method and similarities between pathways were computed against each other. The top-ranked pathways were ABC Transporters (PGSEA < 0.001 , PARTP = 0.001), VEGF Signaling Pathway (PGSEA < 0.001 , PARTP = 0.008), G1/S Check Point (PGSEA = 0.004, PARTP = 0.013), and NRAGE Signals Death through JNK (PGSEA = 0.006, PARTP = 0.001). Our results demonstrate that pathway analysis can shed light on post-GWAS research and help identify potential targets for cancer susceptibility.

[883]

TÍTULO / TITLE: - Aspergilloma mimicking a lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Surg Case Rep. 2013;4(8):690-2. doi: 10.1016/j.ijscr.2013.02.028. Epub 2013 Apr 18.

●● Enlace al texto completo (gratis o de pago) 1016/j.ijscr.2013.02.028

AUTORES / AUTHORS: - Yasuda M; Nagashima A; Haro A; Saitoh G

INSTITUCIÓN / INSTITUTION: - Department of Chest Surgery, Kitakyushu Municipal Medical Center, Japan. Electronic address: ikyoku189@kmmc.jp.

RESUMEN / SUMMARY: - INTRODUCTION: Pulmonary aspergillosis occurs in the parenchymal cavities or ectatic airways. It rarely affects healthy people with an intact immune response. There have been few reports describing an aspergilloma mimicking a lung cancer. PRESENTATION OF CASE: We experienced the case of an asymptomatic healthy 71-year-old female who was admitted with an abnormal lung shadow. Chest CT revealed an irregularly shaped solid lung nodule in the left upper lobe, which increased in size during the follow-up at a regional hospital. The pathology of the bronchial biopsy was negative for malignant cells, and the cultures were negative. Because a lung cancer was strongly suspected, video-assisted thoracic surgery was performed. Aspergillus was detected by a pathological study of the excised specimen, with no evidence of lung cancer. DISCUSSION: It is difficult to make an accurate diagnosis of aspergilloma by imaging findings in healthy people with an intact immune response, and therefore a surgical resection allows both the pathological diagnosis and treatment to be performed concurrently. CONCLUSION: An aspergilloma presenting a mass shadow on imaging may mimic a lung cancer in healthy people with intact immune response.

[884]

TÍTULO / TITLE: - Metastatic lung adenocarcinoma mimicking a colonic polyp.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - N Am J Med Sci. 2013 Apr;5(4):306-7. doi: 10.4103/1947-2714.110443.

●● Enlace al texto completo (gratis o de pago) 4103/1947-2714.110443

AUTORES / AUTHORS: - Kaswala DH; Patel NR; Shah SS; Razack RM; Fitzhugh VA; Brelvi ZS

INSTITUCIÓN / INSTITUTION: - Department of Gastroenterology, University of Medicine and Dentistry New Jersey-UMDNJ, Newark, New Jersey, USA. E-mail: drshahshamik@gmail.com.

[885]

TÍTULO / TITLE: - Cytologic Features of ALK-Positive Pulmonary Adenocarcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Korean J Pathol. 2013 Jun;47(3):252-7. doi: 10.4132/KoreanJPathol.2013.47.3.252. Epub 2013 Jun 25.

- Enlace al texto completo (gratis o de pago)

[4132/KoreanJPathol.2013.47.3.252](#)

AUTORES / AUTHORS: - Ha SY; Ahn J; Roh MS; Han J; Lee JJ; Lee B; Yim J

INSTITUCIÓN / INSTITUTION: - Department of Pathology, Gachon University Gil Medical Center, Incheon, Korea.

RESUMEN / SUMMARY: - BACKGROUND: The aim of this study was to determine the cytologic features of anaplastic lymphoma kinase (ALK) expressing pulmonary adenocarcinoma. METHODS: We analyzed the cytopathological findings of 15 cases of endobronchial ultrasound guided aspiration and a case of bronchial washing. These cases were selected based on the histomorphology of ALK-rearranged lung adenocarcinoma. RESULTS: Cytology showed mucinous (81.3%) and hemorrhagic (50%) backgrounds. The cells were arranged in tubulopapillary or tubulocribriform patterns (93.8%), and clusters (56.3%) admixed with signet ring cell features (87.5%). The tumor cells were monotonous and uniform with vesicular nuclei and a small nucleolus. CONCLUSIONS: The characteristic findings were sheets showing a tubulopapillary or tubulocribriform appearance, with vesicular nuclei and a bland chromatin pattern ($p < 0.001$). Scattered signet ring cells were helpful in suggesting ALK-positive adenocarcinoma ($p < 0.001$).

[886]

TÍTULO / TITLE: - Small cell carcinoma of the anus in the setting of prior squamous dysplasia and carcinoma in situ.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Gastrointest Oncol. 2013 Jun;4(2):E1-4. doi: 10.3978/j.issn.2078-6891.2012.063.

- Enlace al texto completo (gratis o de pago) [3978/j.issn.2078-](#)

[6891.2012.063](#)

AUTORES / AUTHORS: - Marcus DM; Edgar MA; Hawk NN; Sullivan PS; Stapleford LJ

INSTITUCIÓN / INSTITUTION: - Department of Radiation Oncology, Emory University, Atlanta, Georgia, USA ; Department of Winship Cancer Institute, Emory University, Atlanta, Georgia, USA.

RESUMEN / SUMMARY: - Small cell carcinoma of the anus is a rare tumor that has been infrequently described in the literature. In contrast to squamous cell carcinoma, which is known to be associated with high-risk subtypes of human papillomavirus (HPV), the etiology of small cell carcinoma of the anal canal is not established. We present a case of a patient with small cell carcinoma of the anal canal in the setting of prior squamous dysplasia and carcinoma in situ. In conjunction with recently published data demonstrating the presence of HPV in tumor specimens from patients with small cell carcinoma of the anal canal, our patient's clinical course suggests a possible link between HPV and this rare malignancy.

[887]

TÍTULO / TITLE: - High-throughput screening identifies aclacinomycin as a radiosensitizer of EGFR-mutant non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Transl Oncol. 2013 Jun 1;6(3):382-91. Print 2013 Jun.

AUTORES / AUTHORS: - Bennett DC; Charest J; Sebolt K; Lehrman M; Rehemtulla A; Contessa JN

INSTITUCIÓN / INSTITUTION: - Department of Therapeutic Radiology, Yale University, New Haven, CT.

RESUMEN / SUMMARY: - The endoplasmic reticulum (ER) provides a specialized environment for the folding and modification of trans-membrane proteins, including receptor tyrosine kinases (RTKs), which are vital for the growth and survival of malignancies. To identify compounds which disrupt the function of the ER and thus could potentially impair cancer cell survival signaling, we adapted a set of glycosylation-sensitive luciferase reporters for the development and optimization of a cell-based high-throughput screen (HTS). Secondary screens for false-positive luciferase activation and tertiary lectin-based and biochemical analyses were also devised for compound triage. Through a pilot screen of 2802 compounds from the National Cancer Institute (NCI) chemical libraries, we identified aclacinomycin (Acm) as a compound that preferentially affects ER function. We report that Acm reduces plasma membrane expression of glycoproteins including epidermal growth factor receptor (EGFR) and Met but does not inhibit N-linked glycosylation or generalized protein translation. Fluorescence microscopy co-localization experiments were also performed and demonstrated Acm accumulation in the ER in further support of the overall HTS design. The consequences of Acm treatment on cell survival were analyzed through clonogenic survival analysis. Consistent with the reduction of EGFR levels, pretreatment with Acm sensitizes the EGFR-mutant non-small cell lung cancer (NSCLC) cell lines HCC827 and HCC2935 to ionizing radiation and did not affect the sensitivity of the RTK-independent and KRAS-mutant A549 NSCLC cell line. Thus, Acm and similar compounds targeting the ER may represent a novel approach for radiosensitizing tumor cells dependent on RTK function.

[888]

TÍTULO / TITLE: - Classification of hospital pathways in the management of cancer: Application to lung cancer in the region of burgundy.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Cancer Epidemiol. 2013 Jul 10. pii: S1877-7821(13)00106-9. doi: 10.1016/j.canep.2013.06.007.

●● Enlace al texto completo (gratis o de pago)

1016/j.canep.2013.06.007

AUTORES / AUTHORS: - Nuemi G; Afonso F; Roussot A; Billard L; Cottenet J; Combier E; Diday E; Quantin C

INSTITUCIÓN / INSTITUTION: - Service de Biostatistique et d'Information Medicale, Centre Hospitalier Universitaire, 21000 Dijon, Boulevard Jeanne d'Arc BP 77908, 21079 Dijon Cedex, France; INSERM, U866, Universite de Bourgogne, 21000 Dijon, France.

RESUMEN / SUMMARY: - Context: The evaluation of national cancer plans is an important aspect of their implementation. For this evaluation, the principal actors in the field (doctors, nurses, etc.) as well as decision-makers must have access to information that is reliable, synthetic and easy to interpret, and which reflects the implementation process in the field. We propose here a methodology to make this type of information available in the context of reducing inequalities with regard to access to healthcare for patients with lung cancer in the region of Burgundy. Methods: We used the national medico-administrative DRG-type database, which gathers together all hospital stays. By using this database, it was possible to identify and reconstruct the care management history of these patients. That is, by linking together all attended hospitals, sorted chronologically. Eligible patients were at least 18 years old, whatever the gender and had undergone surgery for their lung cancer. They had to be residents of Burgundy at the time of the first operation between 2006 and 2008. Patient's pathway was defined as the sequence of all attended hospitals (hospital stays) during the year of follow up linked together using an anonymised patient identifier. We then constructed a pathway typology of pathway using an unsupervised clustering method, and conducted a spatial analysis of this typology. Results: Between 2006 and 2008, we selected 495 patients in the 4 administrative departments of the Burgundy region. They accounted for a total of 3821 stays during the year of follow-up. There were 393 men (79%) and the mean age was 64 (95% confidence interval: 63-65) years. We reconstructed 94 pathways (about five per patient). Here, neighbourhood's cares accounted for 41% of them, while 44% included a surgical intervention outside the region of Burgundy. We constructed a pathway typology with five classes. Spatial analysis showed that the vast majority of initial surgeries took place in the major regional centres. Conclusion: The construction of a pathway typology leads to better understanding of the reasoning that lies behind the movements of patients. It opens the way for analysis of the collaboration between the different healthcares establishments attended, which should bring to light associations that need to be developed.

[889]

TÍTULO / TITLE: - Pulmonary capillary hemangiomatosis: an uncommon cause of pulmonary hypertension.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Bras Pneumol. 2013 Jun;39(3). pii: S1806-37132013000300390. doi: 10.1590/S1806-37132013000300019.

●● Enlace al texto completo (gratis o de pago) [1590/S1806-37132013000300019](#)

AUTORES / AUTHORS: - Faria IM; Carneiro LH; Tiradentes TA; Zanetti G; Marchiori E

INSTITUCIÓN / INSTITUTION: - Federal University of Rio de Janeiro, Department of Radiology, Rio de Janeiro, Brazil.

[890]

TÍTULO / TITLE: - The effect of Radachlorin® PDT in advanced NSCLC: a pilot study.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Photodiagnosis Photodyn Ther. 2013 May;10(2):120-6. doi: 10.1016/j.pdpdt.2013.01.004. Epub 2013 Mar 16.

●● [Enlace al texto completo \(gratis o de pago\)](#)

1016/j.pdpdt.2013.01.004

AUTORES / AUTHORS: - Ji W; Yoo JW; Bae EK; Lee JH; Choi CM

INSTITUCIÓN / INSTITUTION: - Department of Pulmonary and Critical Care Medicine, Asan Medical Center, University of Ulsan College of Medicine, Seoul, South Korea.

RESUMEN / SUMMARY: - BACKGROUND: Palliative effect of PDT in advanced NSCLC has been proven. Radachlorin® is a second generation photosensitizer that has quicker pharmacokinetics than first generation photosensitizers. Although there are reports describing Radachlorin®, limited data are available regarding its advantages in PDT. METHODS: Advanced NSCLC patients with central airway obstruction were enrolled. Patients who had comorbidity effects on drug metabolism were excluded. All patients received 1mg/kg of Radachlorin®, 4 h before light irradiation. 200 J/cm(2) of laser was irradiated during 11 min 6 s. Bronchial toileting was performed the following day. A PFT was performed before and after PDT. The primary treatment outcome was improvement of airway obstruction, which was evaluated according to bronchoscopic findings and improvement of FEV1. Secondary treatment outcomes included the rate of PDT-related complications, one year survival rate and progression free survival. RESULTS: Ten patients were enrolled between June 2010 and May 2011. Their median age was 58.5 years and their baseline cancer stage was more than IIIA. 20% of patients showed successful results, 70% showed partially successful results and 10% showed an unsuccessful result. All patients showed improvement in their obstructive symptoms. The mean FEV1 before PDT was 1.70+/-0.69 L, while the mean FEV1 after PDT was 1.99+/-0.60 L (P=0.029). No patients had major complications. Eight patients were undergoing additional treatment after resolving airway obstruction. The one year survival rate after PDT was 70%. CONCLUSIONS: Radachlorin®-based PDT is safe and effective treatment for relieving central airway obstruction in advanced NSCLC.

[891]

TÍTULO / TITLE: - Acrometastasis showing an occult lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Plast Surg Hand Surg. 2013 Jul 8.

●● Enlace al texto completo (gratis o de pago)

[3109/2000656X.2012.748319](#)

AUTORES / AUTHORS: - Gilardi R; Rosa ND; Pancaldi G; Landi A

INSTITUCIÓN / INSTITUTION: - Hand Surgery Department, University Hospital ,
Modena , Italy.

RESUMEN / SUMMARY: - Abstract The purpose of this paper was to present a case of an occult lung cancer diagnosed by the presence of a carpal bone metastatic lesion.

[892]

TÍTULO / TITLE: - Overexpression of MTA3 Correlates with Tumor Progression in Non-Small Cell Lung Cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - PLoS One. 2013 Jun 19;8(6):e66679. Print 2013.

●● Enlace al texto completo (gratis o de pago)

[1371/journal.pone.0066679](#)

AUTORES / AUTHORS: - Li H; Sun L; Xu Y; Li Z; Luo W; Tang Z; Qiu X; Wang E

INSTITUCIÓN / INSTITUTION: - Department of Pathology, First Affiliated Hospital and College of Basic Medical Sciences, China Medical University, Shenyang, Liaoning, China.

RESUMEN / SUMMARY: - The objective of the current study was to investigate the expression pattern and clinicopathological significance of MTA3 in patients with non-small cell lung cancer (NSCLC). The expression profile of MTA3 in NSCLC tissues and adjacent noncancerous lung tissues was detected by immunohistochemistry. MTA3 was overexpressed in 62 of 108 (57.4%) human lung cancer samples and correlated with p-TNM stage ($p < 0.0001$), nodal metastasis ($p = 0.0009$) and poor prognosis ($p < 0.05$). In addition, the depletion of MTA3 expression with small interfering RNAs inhibited cell growth and colony formation in the A549 and H157 lung cancer cell lines. Moreover, MTA3 depletion induced cell cycle arrest at the G1/S boundary. Western blotting analysis revealed that the knockdown of MTA3 decreased the protein levels of cyclin A, cyclin D1 and p-Rb. These results indicate that MTA3 plays an important role in NSCLC progression.

[893]

TÍTULO / TITLE: - Unusual presentation and location pleural malignant mesothelioma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - British Medical J (BMJ). 2013 Jun 10;347:f3333

<http://bmj.com/search.dtl> ●● British Medical J. (BMJ): <> Case Rep. 2013 Jun 10;2013. pii: bcr2013009850. doi: 10.1136/bcr-2013-009850.

●● Enlace al texto completo (gratis o de pago) [1136/bcr-2013-009850](#)

AUTORES / AUTHORS: - Kumar A; Carcano C; Hadeh A; Lilenbaum R

INSTITUCIÓN / INSTITUTION: - Department of Pulmonary and Critical Care Medicine, Cleveland Clinic Florida, Weston, Florida, USA. kumara2@ccf.org

RESUMEN / SUMMARY: - Pleural malignant mesothelioma is an uncommon tumour of the thorax. We report two cases: a patient with atypically isolated location of the tumour at the right hilum and a young female patient. The histopathological and radiological features are reviewed with reference to relevant literature.

[894]

TÍTULO / TITLE: - Recurrence of paraneoplastic membranous glomerulonephritis following chemoradiation in a man with non-small-cell lung carcinoma.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Rare Tumors. 2013 May 6;5(2):62-4. doi: 10.4081/rt.2013.e16. Print 2013 Apr 15.

●● [Enlace al texto completo \(gratis o de pago\) 4081/rt.2013.e16](#)

AUTORES / AUTHORS: - Crawford AR; Dworkin L; Leonard K; Khurshid H; Hepel JT

INSTITUCIÓN / INSTITUTION: - Departments of Radiation Oncology.

RESUMEN / SUMMARY: - ABSTRACT: Membranous glomerulonephritis can occur as a rare paraneoplastic complication of human cancers. In this case report, we describe a patient who presented acutely with symptoms of the nephrotic syndrome including heavy proteinuria and anasarca. He was subsequently diagnosed with membranous glomerulonephritis, and soon afterwards was found to have stage IIIB non-small cell lung cancer. Following chemoradiation therapy, both the patient's cancer and membranous glomerulonephritis dramatically improved. However, approximately 14 months following his initial presentation, the patient was found to have a recurrence of his nephrotic-range proteinuria which corresponded temporally with recurrence of his cancer. We present details of the case and a review of the relevant scientific literature.

[895]

TÍTULO / TITLE: - Immunomodulatory Effect of Mangiferin in Experimental Animals with Benzo(a)Pyrene-induced Lung Carcinogenesis.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Int J Biomed Sci. 2013 Jun;9(2):68-74.

AUTORES / AUTHORS: - Rajendran P; Jayakumar T; Nishigaki I; Ekambaram G; Nishigaki Y; Vetrisevi J; Sakthisekaran D

INSTITUCIÓN / INSTITUTION: - Department of Medical Biochemistry, Dr. ALM PG Institute of Basic Medical Sciences, University of Madras, Taramani Campus, Chennai, India;

RESUMEN / SUMMARY: - The immunomodulatory activity of mangiferin was studied in various groups of animals. For this study, adult Swiss albino male mice were treated with benzo(a)pyrene, abbreviated as B(a)P, at 50 mg/kg

body weight orally twice a week for 4 weeks; and mangiferin was also given orally (pre- and post-initiation of carcinoma) at 100 mg/kg body weight. Immunocompetence and immune complexes as measured by phagocyte index, avidity index, and soluble immune complex (SIC) levels ($p < 0.001$), as well as NBT reduction, were decreased in the B(a)P-treated animals; whereas increased levels of immunocompetence were noted in the mangiferin-treated animals given B(a)P ($p < 0.001$, $p < 0.05$). The levels of immunoglobulins such as IgG and IgM were decreased considerably ($p < 0.001$) in the B(a)P-treated animals compared with their levels in the control animals; whereas the IgA level was increased ($p < 0.001$). In the mangiferin-treated experimental animals given B(a)P, the levels of IgG and IgM were significantly ($p < 0.001$, $p < 0.05$) increased whereas the IgA level was decreased compared with those for the B(a)P-treated mice. Oxidative changes in lymphocytes, neutrophils, and macrophages were also measured. The enhanced lipid peroxidation and decreased catalase and superoxide dismutase activities found in the lymphocytes, polymorphonuclear cells (PMN), and macrophages from B(a)P-treated mice were significantly reduced and increased, respectively, by the mangiferin treatment. This study confirms the immunomodulatory effect of mangiferin and shows an immunoprotective role arbitrated through a reduction in the reactive intermediate-induced oxidative stress in lymphocytes, neutrophils, and macrophages.

[896]

TÍTULO / TITLE: - Metachronous lung cancer that presented as bilateral synchronous lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - J Thorac Dis. 2013 Jun;5(3):E87-9. doi: 10.3978/j.issn.2072-1439.2013.04.16.

●● Enlace al texto completo (gratis o de pago) [3978/j.issn.2072-1439.2013.04.16](#)

AUTORES / AUTHORS: - Kocaturk CI; Cansever L; Kanmaz DZ; Bedirhan MA

INSTITUCIÓN / INSTITUTION: - Department of Thoracic Surgery, Yedikule Chest Disease and Surgery Training and Research Hospital, Istanbul, Turkey;

RESUMEN / SUMMARY: - Every patient undergoing curative treatment for primary lung cancer is a candidate for metachronous lung cancer, with a reported risk of 5% per year. The majority of cases are stage I patients. Patients who undergo resection for lung cancer should be followed regularly. A metachronous lung cancer that develops as bilateral synchronous lung cancer is very rare.

[897]

TÍTULO / TITLE: - SHP1-mediated cell cycle redistribution inhibits radiosensitivity of non-small cell lung cancer.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Radiat Oncol. 2013 Jul 10;8:178. doi: 10.1186/1748-717X-8-178.

●● Enlace al texto completo (gratis o de pago) [1186/1748-717X-8-178](https://doi.org/10.1186/1748-717X-8-178)

AUTORES / AUTHORS: - Cao R; Ding Q; Li P; Xue J; Zou Z; Huang J; Peng G

INSTITUCIÓN / INSTITUTION: - Cancer Center of Union Hospital, Tongji Medical College, Huazhong University of Science and Technology, No, 1227 Jiefang Dadao, Wuhan 430022, China.

RESUMEN / SUMMARY: - BACKGROUND: Radioresistance is the common cause for radiotherapy failure in non-small cell lung cancer (NSCLC), and the degree of radiosensitivity of tumor cells is different during different cell cycle phases. The objective of the present study was to investigate the effects of cell cycle redistribution in the establishment of radioresistance in NSCLC, as well as the signaling pathway of SH2 containing Tyrosine Phosphatase (SHP1). METHODS: A NSCLC subtype cell line, radioresistant A549 (A549S1), was induced by high-dose hypofractionated ionizing radiations. Radiosensitivity-related parameters, cell cycle distribution and expression of cell cycle-related proteins and SHP1 were investigated. siRNA was designed to down-regulate SHP1 expression. RESULTS: Compared with native A549 cells, the proportion of cells in the S phase was increased, and cells in the G0/G1 phase were consequently decreased, however, the proportion of cells in the G2/M phase did not change in A549S1 cells. Moreover, the expression of SHP1, CDK4 and Cylind1 were significantly increased, while p16 was significantly down-regulated in A549S1 cells compared with native A549 cells. Furthermore, inhibition of SHP1 by siRNA increased the radiosensitivity of A549S1 cells, induced a G0/G1 phase arrest, down-regulated CDK4 and Cylind1 expressions, and up-regulated p16 expression. CONCLUSIONS: SHP1 decreases the radiosensitivity of NSCLC cells through affecting cell cycle distribution. This finding could unravel the molecular mechanism involved in NSCLC radioresistance.

[898]

TÍTULO / TITLE: - Moscatilin inhibits lung cancer cell motility and invasion via suppression of endogenous reactive oxygen species.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - Biomed Res Int. 2013;2013:765894. doi: 10.1155/2013/765894. Epub 2013 May 8.

●● Enlace al texto completo (gratis o de pago) [1155/2013/765894](https://doi.org/10.1155/2013/765894)

AUTORES / AUTHORS: - Kowitdamrong A; Chanvorachote P; Sritularak B; Pongrakhananon V

INSTITUCIÓN / INSTITUTION: - Department of Pharmacology and Physiology, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok 10330, Thailand.

RESUMEN / SUMMARY: - Lung cancer is the leading cause of death among cancer patients worldwide, and most of them have died from metastasis.

Migration and invasion are prerequisite processes associated with high metastasis potential in cancers. Moscatilin, a bibenzyl derivative isolated from the Thai orchid *Dendrobium pulchellum*, has been shown to have anticancer effect against numerous cancer cell lines. However, little is known regarding the effect of moscatilin on cancer cell migration and invasion. The present study demonstrates that nontoxic concentrations of moscatilin were able to inhibit human nonsmall cell lung cancer H23 cell migration and invasion. The inhibitory effect of moscatilin was associated with an attenuation of endogenous reactive oxygen species (ROS), in which hydroxyl radical (OH \cdot) was identified as a dominant species in the suppression of filopodia formation. Western blot analysis also revealed that moscatilin downregulated activated focal adhesion kinase (phosphorylated FAK, Tyr 397) and activated ATP-dependent tyrosine kinase (phosphorylated Akt, Ser 473), whereas their parental counterparts were not detectable changed. In conclusion, our results indicate the novel molecular basis of moscatilin-inhibiting lung cancer cell motility and invasion and demonstrate a promising antimetastatic potential of such an agent for lung cancer therapy.

[899]

TÍTULO / TITLE: - Defect in recruiting effector memory CD8 $^{+}$ T-cells in malignant pleural effusions compared to normal pleural fluid.

RESUMEN / SUMMARY: - [Enlace al Resumen / Link to its Summary](#)

REVISTA / JOURNAL: - BMC Cancer. 2013 Jul 2;13:324. doi: 10.1186/1471-2407-13-324.

●● [Enlace al texto completo \(gratis o de pago\) 1186/1471-2407-13-324](#)

AUTORES / AUTHORS: - Scherpereel A; Grigoriu BD; Noppen M; Gey T; Chahine B; Baldacci S; Trauet J; Copin MC; Dessaint JP; Porte H; Labalette M

INSTITUCIÓN / INSTITUTION: - INSERM Unit 1019, CIIL, Institut Pasteur de Lille, Lille, France. arnaud.scherpereel@chru-lille.fr

RESUMEN / SUMMARY: - BACKGROUND: Malignant pleural effusions (MPE) are a common and fatal complication in cancers including lung or breast cancers, or malignant pleural mesothelioma (MPM). MPE animal models and immunotherapy trials in MPM patients previously suggested defects of the cellular immunity in MPE. However only few observational studies of the immune response were done in MPM patients, using questionable control groups (transudate..). METHODS: We compared T cell populations evaluated by flow cytometry from blood and pleural effusion of untreated patients with MPM (n = 58), pleural metastasis of adenocarcinoma (n = 30) or with benign pleural lesions associated with asbestos exposure (n = 23). Blood and pleural fluid were also obtained from healthy subjects, providing normal values for T cell populations. RESULTS: Blood CD4 $^{+}$ or CD8 $^{+}$ T cells percentages were similar in all groups of patients or healthy subjects. Whereas pleural fluid from healthy controls contained mainly CD8 $^{+}$ T cells, benign or malignant pleural effusions included mainly CD4 $^{+}$ T cells. Effector memory T cells were the main

T cell subpopulation in pleural fluid from healthy subjects. In contrast, there was a striking and selective recruitment of central memory CD4+ T cells in MPE, but not of effector cells CD8+ T cells or NK cells in the pleural fluid as one would expect in order to obtain an efficient immune response. CONCLUSIONS: Comparing for the first time MPE to pleural fluid from healthy subjects, we found a local defect in recruiting effector CD8+ T cells, which may be involved in the escape of tumor cells from immune response. Further studies are needed to characterize which subtypes of effector CD8+ T cells are involved, opening prospects for cell therapy in MPE and MPM.
