



What's hot that the other lot got

Simon Rolin

THE RISK OF OVERDIAGNOSIS IN LUNG CANCER SCREENING

Screening for lung cancer has been proposed on the principle that tumours will be detected at a smaller size and earlier stage, resulting in a reduction in lung cancer mortality. This study (*JAMA Intern Med* doi:10.1001/jamainternmed.2013.12738) reviewed data from the National Lung Screening Trial to calculate the rates of excess cancers in the LDCT versus CXR arm for all lung cancers and various histological subtypes. The probability was 18.5% that any lung cancer detected by screening with LDCT in the National Lung Screening Trial was an overdiagnosis. Overdiagnosis represents an important potential harm of screening because it incurs unnecessary cost, anxiety and morbidity associated with cancer treatment.

A SPUTUM BIOMARKER FOR COPD?

Proline-glycine-proline (PGP) is a neutrophil chemoattractant derived from the enzymatic breakdown of collagen and is elevated in the sputum of patients with COPD. This study (*BMJ Open*;3:e004140doi:10.1136/bmjopen-2013-004140) was conducted ancillary to a multicentre, prospective, parallel group, placebo-controlled, double-blind study of the efficacy of azithromycin in the chronic outpatient management of COPD. The aim was to test whether sputum levels of PGP were altered by treatment or associated with exacerbation frequency. Chronic treatment with azithromycin was found to significantly reduce sputum levels of PGP particularly with increased duration of therapy. Sputum PGP levels were highest around the time of an exacerbation, preceding the onset of symptoms, and declined with successful treatment. This data support a role for PGP in the neutrophilic inflammation that drives COPD progression and exacerbations, and provides information on the anti-inflammatory properties of macrolides.

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FDG UPTAKE IN NSCLC

This study retrospectively analysed 50 patients with nonsmall cell lung cancer (NSCLC) who underwent PET/CT to assess the prognostic value of the maximum standardised uptake value of the primary tumour (*Med Oncol* 2014;31:780. doi:10.1007/s12032-013-0780-8). Multivariate logistic analysis showed that histological differentiation and maximum standardised uptake value of primary tumour might be considered as significant predictive factors for overall survival and progression-free survival in patients with NSCLC suggesting that FDG uptake by the primary tumour may be an independent outcome predictor for patients with NSCLC.

BLOOD PRESSURE TREATMENT WITH CPAP?

More than 70% of patients with resistant hypertension have obstructive sleep apnoea (OSA). The HIPARCO randomised clinical trial (*JAMA* 2013;310:2407–15. doi:10.1001/jama.2013.281250) was an open-label, randomised, multicentre clinical trial of parallel groups investigating the effect of CPAP treatment on blood pressure values and nocturnal blood pressure patterns in patients with resistant hypertension and OSA. The primary end point was the change in 24-h mean blood pressure after 12 weeks. The CPAP group achieved a greater decrease in 24-h mean blood pressure and 24-h diastolic blood pressure, but not in 24-h systolic blood pressure compared with the control group. An improvement was also seen in the nocturnal blood pressure pattern of the CPAP group.

CIRCULATING TUMOUR CELLS IN MESOTHELIOMA

Detection and analysis of circulating tumour cells (CTCs) from patients with metastatic malignancies has proven a useful method of establishing prognosis in metastatic breast, colon and prostate cancer. This study prospectively evaluated CTCs in samples of peripheral blood from patients with a suspicion of malignant pleural mesothelioma (MPM) (*Ann Surg Oncol*.2013 Dec 4). CTCs were detected in 32.7% of patients with MPM but in only 9.4% of patients with non-malignant diseases. Among patients with MPM CTCs were more frequently

detected in patients with epitheloid subtype than in those with non-epitheloid subtypes. Multivariate analysis showed that for patients positive for epitheloid MPM CTCs were a significant independent factor to predict a poor prognosis.

SMOKING AND REFLUX

Smoking has been shown to increase the risk of gastro-oesophageal reflux symptoms (GORS). The HUNT study (*Am J Gastroenterol* 2013. doi:10.1038/ajg.2013.414) was a prospective population-based cohort study that aimed to clarify if tobacco smoking sensation improved GORS. Cessation of daily tobacco smoking was associated with improvements in GORS from severe to no or minor complaints among individuals using antireflux medication at least once a week (adjusted OR 1.78; 95% CI 1.07 to 2.97). This association was present among individuals within the normal range of BMI (OR 5.67; 95% CI 1.36 to 23.64), but not among those in the overweight category. No association was found between tobacco smoking cessation and GORS among individuals with minor GORS or individuals using antireflux medication less than once a week.

BRONCHIECTASIS IN ASTHMA

This case-control study aimed to establish the prevalence of bronchiectasis in patients with asthma, comparing a cohort with severe steroid dependent asthma (SDA) and another with non-SDA (*Biomed Res Int* 2013;2013:109219. doi:10.1155/2013/109219). Blood immunoglobulin (Ig) and IgG subclass levels were determined in an attempt to correlate them with the development of bronchiectasis. The prevalence of bronchiectasis was 20% in the SDA group and 4% in the non-SDA group ($p < 0.05$). Patients with asthma-associated bronchiectasis showed lower FEV₁ values than patients without bronchiectasis, but the levels of Ig and subclasses of IgG did not present differences. These results suggest that SDA is associated with a greater risk of developing bronchiectasis, but this does not appear to be mediated by a deficiency in Ig and IgG subclass.

Competing interests None.

Provenance and peer review Not commissioned; internally peer reviewed.



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To cite Rolin S. *Thorax* 2014;69:304.

Thorax 2014;69:304.
doi:10.1136/thoraxjnl-2014-205136