JOURNAL CLUB SUMMARIES

What's hot that the other lot got

Kathryn Prior

MONITORING ON ANTITUMOUR NECROSIS FACTOR THERAPY

We screen people before starting on antitumour necrosis factor (anti-TNF) treatment for latent TB with interferon γ release assays before they start treatment, but what happens during treatment? (10.1136/annrheumdis-2014-205376) Out of 247 patients, 29% (20) converted for one test (nine Tuberculin skin test, seven T-SPOT, five QuantiFERON-TB Gold In Tube). One had definite TB contact. Eight were treated with isoniazid prophylaxis. It occurred more commonly on etanercept though this was not statistically significant. This has implications for future treatment and monitoring for those on anti-TNF therapy.

INFLUENZA VACCINE PROTECTS AGAINST INFLUENZA-ASSOCIATED PNEUMONIA

The influenza jab is commonly blamed by people for admission to hospital with pneumonia and almost everything else. This study looked at the risk of influenza pneumonia in those who had received the influenza jab. Out of 2767 patients hospitalised due to pneumonia, 162 (5.9%) had swab confirmed influenza (doi:10.1001/jama.2015.12160). Of those with influenza-associated pneumonia, 28 (17%) were vaccinated; in the controls (influenza negative pneumonia), 29% were vaccinated. This gives an OR of 0.43, indicating that the risk of influenza-associated pneumonia is less in those who did receive the jab.

PULMONARY HYPERTENSION IN HIV

Pulmonary hypertension (PH) though is rare is more common in HIV though at what prevalence? Also in whom is it more common and should be screened? Echocardiography was carried out in 374 patients with HIV, PH was seen in 23 (6.1%) (doi:10.1111/hiv.12261). Three were symptomatic, having dyspnoea and fatigue. In those with PH, it was more common in females to have a history of injecting drugs and to have come from high-prevalence countries.

Correspondence to Dr Kathryn Prior, Heart and Lung Unit, Torbay Hospital, Lawes Bridge, Torquay, Devon TQ2 7AA, UK; kathrynbrain@doctors.net.uk

COMBINED PULMONARY FIBROSIS AND EMPHYSEMA

Combined pulmonary fibrosis and emphysema (CPFE) is an increasingly recognised entity, ways of predicting severity and mortality would be useful. This study looked at 113 patients with CPFE, the extent of the fibrosis and emphysema was scored and then Cox proportional regression analysis was used to determine the prognostic value of the CT findings and pulmonary function (doi:http://dx.doi.org/10.1259/bjr.20150545). Risk factors associated with mortality were an increase in visually stratified honeycombing (HR 1.95) and reduced diffusing capacity of lung for carbon monoxide (HR 0.97). The 5-year survival rate for those with <5% honeycombing was 78.5%, but 33.3% for those with >50% honeycombing.

MENOPAUSE AND ASTHMA

The menopause is blamed for many things; however, can it be blamed for causing asthma? The Respiratory Health in Northern Europe study data were analysed to look for an association between the diagnosis of asthma and menopausal status (doi:http://dx.doi.org/10.1016/j.jaci.2015.08.019). They found that the odds of developing asthma were increased in those going through the menopause (OR 2.40), early postmenopausal (OR 2.11) and late postmenopausal (OR 3.44) compared with those who were non-menopausal. The risk of respiratory symptoms was also raised in those who were postmenopausal.

WHAT IS THE INCIDENCE OF NON-SOLID NODULES IN LUNG CANCER SCREENING AND FOLLOW-UP?

Participants of the International Early Lung Cancer Action Program underwent baseline and annual CT screening (doi:10.1148/radiol.2015142554). Of 57 496 baseline screening CT scans, there were 2392 non-solid nodules, 73 were proven to be adenocarcinoma. Of 64 677 annual screening CTs carried out, 485 non-solid nodules were discovered, 11 were proven to be adenocarcinoma. Non-solid nodules were seen to resolve or decrease in size more frequently when found during annual screening (322 of 485 vs 628 of 2392). A solid component developed in 22 cases prior to treatment (median development time 25 months). The lung cancer survival rate was 100%, with median time to treatment being 19 months.

EOSINOPHILS AS MARKERS OF ASTHMA CONTROL

We know that sputum eosinophilia is a predictor for asthma control; however, this is impractical in many places; therefore, can serum eosinophilia be used as a surrogate marker? A cohort study looked at those with a serum eosinophil level of greater or less than 400 cells/μL, and the risk of exacerbating their asthma (doi:http://dx.doi.org/10.1016/S2213-2600(15)00367-7). In those with a blood eosinophil count of >400/μL, there were significantly more exacerbations, as well as lower odds of achieving asthma control. Exacerbation rates increased progressively as the eosinophil count increased from 200 cells/μL.

COCHRANE NEWSFLASH

A Cochrane review of trials in children and adults with cystic fibrosis showed that treatment with mannitol over a 6-month period shows improvements in some lung function measurements as compared with control, but there is no evidence that quality of life is improved. There is no randomised evidence of improvements when comparing mannitol with dornase alfa alone and to mannitol plus dornase alfa. Further research is required in order to establish who may benefit most and whether this can be sustained in the longer term.

Nolan SJ, Thornton J, Murray CS, *et al*. Inhaled mannitol for cystic fibrosis. Cochrane Database Syst Rev 2015;(10):CD008649. doi:10.1002/14651858.CD008649.pub2. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD008649.pub2/abstract

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