JOURNAL CLUB SUMMARIES

What's hot that the other lot got

Elizabeth Batalla-Duran

A NEW TEST FOR LUNG CANCER SCREENING

With ongoing debate about a screening programme for lung cancer in the UK, this case–control study in *Lung Cancer* (DOI http://dx.doi.org/10.1016/j.lungcan.2015.03.011) may help by potentially providing a new test to ascertain at-risk individuals who could then have a CT scan.

The study used fluorescent in situ hybridisation to look at telomere length variation (TLV) and mean telomere length in blood lymphocytes. One hundred and ninety-one patients with newly diagnosed non-small cell lung cancer and 207 healthy matched controls were tested. TLV across all chromosomal ends was significantly associated with lung cancer risk; adjusted ORs were 4.67 (95% CI 1.46 to 14.9) for younger patients (<60 years) and 0.46 (95% CI 0.25 to 0.84) for older patients (age >60 years). TLV and mean telomere length jointly affected lung cancer risk: when comparing individuals with short telomere length and high TLV to those with long telomere length and low TLV, adjusted ORs were 8.21 (95% CI 1.71 to 39.5) and 0.33 (95% CI 0.15 to 0.72) for younger and older individuals, respectively. However, the practicalities of such a test may limit its use.

ANTIBIOTIC USE IN PNEUMONIA

Most hospitals in the UK have a β-lactam plus macrolide (or fluroquinolone only if penicillin allergic) strategy in their empirical treatment for pneumonia. However, a recent Dutch study published in the *N Engl J Med* (2015:1312–23) shows this may not be necessary. Two thousand two hundred and eighty-three patients were allocated to three different treatment strategies (656 to β-lactam monotherapy, 739 to β-lactam plus macrolide and 888 to fluroquinolone monotherapy) in this randomised crossover study. Ninety-day mortality was used as an end point. Intention-to-treat analysis was used. The 90-day mortality was 9.0% (59 patients) in β-lactam monotherapy, 11.1% (82 patients) in β-lactam plus macrolide and 8.8% (78 patients) in fluroquinolone monotherapy. There was no statistically significant difference between mortality on intention-to-treat analysis between the three drug regimes. Median length of hospital stay was 6 days across all strategies. Monotherapy with a β-lactam was therefore considered to be non-inferior to the other strategies. This could lead to reduced antibiotic use with fewer drug interactions, reduced side effects and less antibiotic resistance.

ROLE OF CPAP IN ERECTILE DYSFUNCTION

Many users of CPAP complain about their unromantic appearance at bedtime but now it seems CPAP might actually be improving things. This prospective Turkish study (*Afr Health Sci* 2015;15:171–9. doi: 10.4314/ahs.v15i1.23) investigated the frequency and degree of erectile dysfunction (ED) in patients with obstructive sleep apnoea syndrome (OSAS) and evaluated the effect of CPAP therapy on their ED symptoms. Ninety male patients presenting to the sleep clinic were assessed for OSAS. Sixty-two of these had a diagnosis of mild, moderate or severe OSAS made and were the 'study' group. The remaining 28 (apnoea hypopnoea index <5) were the control group. All participants were given an International Index of Erectile Function (IIEF-5) questionnaire (lower score indicates ED). Twenty-eight patients were treated with CPAP. IIEF-5 scores were reassessed after 3 months of treatment. When compared with the control group, a decrease in IIEF-5 scores was found in patients with OSAS. However, this decrease was not statistically significant. In those patients treated with CPAP, mean IIEF-5 score increased significantly after treatment. The authors concluded that OSAS may increase ED, possibly as a result of hypoxaemia on the cardiovascular system. In those patients with OSAS and ED, CPAP treatment appears to improve function.

DIAGNOSING UIP ON HRCT ALONE

High-resolution CT (HRCT) alone may be sufficient to diagnose usual interstitial pneumonia (UIP) and provide a confident prognosis without biopsy. This retrospective study (*La Radiologica Medica* DOI 10.1007/s11547-015-0526-0) looked at whether HRCT criteria for UIP, possible UIP or no-UIP pattern as recommended by the American Thoracic Society/European Respiratory Society/Japanese Respiratory Society/Latin American Thoracic Association guidelines 2011 were able to predict progression and prognosis of the disease in a group of patients with fibrotic idiopathic interstitial pneumonia. Two radiologists stratified 70 patients into the three groups based on the presence or absence of honeycombing, reticulation, ground-glass and traction bronchiectasis on HRCT.

The mortality rate of the three groups was compared after follow-up. Results showed near perfect interobserver agreement in the classification into the three groups (k=0.92). During follow-up (mean 1386 days), overall CT score, fibrotic score, honeycombing and traction bronchiectasis showed a significant progression in the UIP group. The mortality rate was significantly higher in the UIP group (18 deaths) versus possible UIP and no-UIP groups (one death each) (p<0.04). In the UIP group, factors conferring worse prognosis were baseline honeycombing rate higher than 25%, fibrotic score higher than 30, overall CT score greater than 45 and traction bronchiectasis in more than four lobes.

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Correspondence to Dr Elizabeth Batalla-Duran, Heart and Lung Unit, Torbay Hospital, Lawes Bridge, Torquay, Devon TQ2 7AA, UK; ebatalla-duran@nhs.net

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