

Breathing exercises for asthma

Despite optimal management of asthma, many patients still remain symptomatic and there has been renewed interest in the benefit of breathing exercise techniques in asthma. In this month's *Thorax*, Thomas and colleagues report a randomised controlled trial of physiotherapist-supervised breathing retraining compared with nurse-delivered asthma education. Breathing training had no effect on airway function, inflammation or hyper-responsiveness and there was no difference in outcomes 1 month after the intervention. However, at 6 months follow-up, the results showed improvement in the asthma quality of life score in the breathing training group and in psychological function scores. Thus this study shows that breathing exercises may play a role in asthma management, but they need to be performed in combination with asthma education and optimal anti-inflammatory therapy. *See page 55.*

Occupational exposure and COPD

It has been recognised for some time that, in addition to cigarette smoking, occupational dust exposure may be a causative factor for chronic obstructive pulmonary disease (COPD), although the precise relationship with cigarette smoking has not been clearly evaluated. In this issue of *Thorax*, Blanc and colleagues report a case-control study of well characterised COPD patients and controls from California, USA. Occupational exposures were assessed using self-reported exposures to vapours, gas, dust or fumes and also a job exposure matrix (JEM) for probability of exposure on the basis of occupation. The risk of COPD with occupational exposure was double that with no exposure. The fraction of COPD in the population attributed to occupational exposure was 31% on self-reported exposures and 13% by JEM. There was a significant and strong interaction between smoking and occupational exposure. As Jaakkola concludes in the accompanying editorial, both occupational exposure and smoking need to be addressed in the primary and secondary prevention of COPD. *See pages 1 and 6.*

Breastfeeding and lung function

It has been known for some time that breastfeeding is protective against respiratory infections, but the effect of breastfeeding on other parameters of lung function and asthma are not clear, especially in older children. In this issue of *Thorax*, Ogbuanu and colleagues report data on breastfeeding from the well characterised Isle of Wight, UK birth cohort and its effect on 10-year-old children. The results show that children who were breastfed for at least 4 months showed better lung function at age 10 compared with those who were not breastfed. Children who were breastfed for less than 4 months did not show this benefit and a maternal history of asthma or allergy did not affect the results. The authors conclude that future studies need to address the mechanisms underlying these interesting results. *See page 62.*

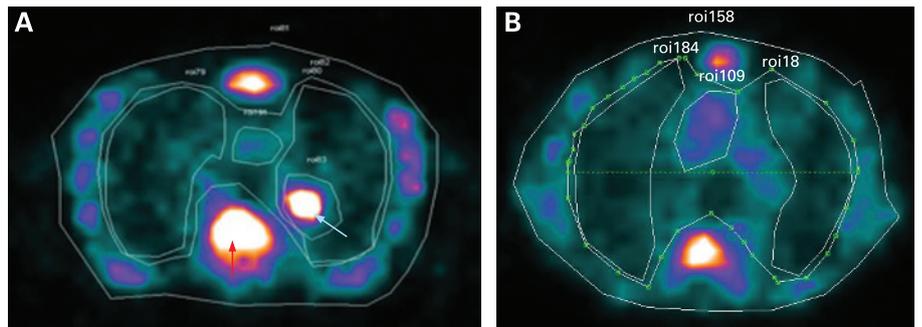
More on statins and asthma

Last month, we published a study on statins and asthma showing no significant clinical effects despite some effects on airway markers. In this issue we present a study in a mouse model by Imamura and colleagues, showing that pravastatin suppresses the systemic sensitisation to allergen with downregulation of interleukin-17 production. Pravastatin also reduced airway immune responses. In the accompanying

editorial Rubin discusses some of the potential mechanisms that may account for these effects, but he also points out that, to date, clinical studies of statins in asthma have been negative. He reminds us that we already have effective asthma therapies and these need to be taken as prescribed. Further studies are required to evaluate whether statins indeed have a future role in asthma management. *See pages 4 and 44.*



Chest radiograph showing right apical cavitation (*see page 89*).



(A) Single photon emission computed tomographic (SPECT) scan taken after 4 h demonstrating focal uptake of ^{99m}Tc -labelled neutrophils in the left lower lobe (blue arrow). The red arrow depicts the expected uptake of ^{99m}Tc -labelled neutrophils in the vertebral bone marrow. Normal uptake is also seen anteriorly in the sternum and in the ribs. (B) SPECT scan of a matched subject with chronic obstructive pulmonary disease showing minimal activity within the vascular compartment at 4 h and a diffuse signal within the lung fields. (*see page 92*).