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Peripheral muscle dysfunction in pulmonary hypertension

The prognosis of idiopathic pulmonary arterial hypertension (IPAH) has recently improved as a result of novel specific therapies. However, some treated patients with IPAH may have persistent dyspnoea and exercise intolerance. In this issue, Mainguy and colleagues describe a study of peripheral muscle function, morphology and the enzymatic profile in IPAH. The authors report significant morphological and functional changes in the quadriceps of patients with IPAH with a lower proportion of type 1 fibres, a lower maximal voluntary contraction and a higher potential for anaerobic than aerobic metabolism. Some of these changes correlated with the patients' functional capacity. In the accompanying editorial, Nathan and Fuld discuss the results and point out that, while the study is small, the results have important

implications for management of patients with IPAH. They also compare muscle dysfunction in IPAH with that found in other chronic respiratory conditions such as COPD. Thus, in the future, targeting peripheral muscle dysfunction in IPAH may improve exercise capacity in this disabling condition. *See pages 97 and 113.*

Paracetamol and risk of wheeze

Paracetamol (acetaminophen) has been associated with asthma and, in this month's *Thorax*, Perzanowski and colleagues describe the association between prenatal paracetamol exposure and risk of wheeze in an urban low-income cohort of Dominican Republic and African-American children in New York. Prenatal exposure to paracetamol predicted wheeze at 5 years in this inner city cohort and the risk was affected by a functional polymorphism in the glutathione S transferase Pi gene (GSTP1).

These results may explain some of the reasons for the high prevalence of asthma in minority communities and, in the accompanying editorial, Persky discusses some of the mechanisms for this association. She describes some of the strategies that could be employed to reduce paracetamol exposure, but concludes that more research is required about the amount and timing of the exposure and other confounding factors. *See pages 99 and 118.*

Urine antigen tests in pneumonia

As Mandell points out in the editorial to the paper by Falguera and colleagues, community acquired pneumonia is often misdiagnosed and improperly treated. Thus, there is an urgent need for effective and rapid diagnostic tests. Falguera and colleagues describe a randomised study comparing empirical treatment of pneumonia with targeted treatment on the basis of urine antigen results in hospitalised patients. The study showed no benefit of using urine antigen tests and use of targeted treatment was associated with a higher rate of clinical relapse. Mandell discusses the design, limitations and results of the study and suggests that further studies are required with urine antigen tests in pneumonia designed to reduce confounding. *See pages 93 and 101.*

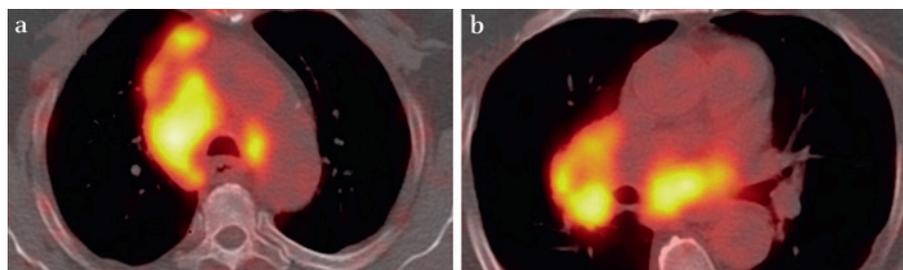


Figure 1 Positron emission tomography image demonstrating large intensely fluorodeoxyglucose (FDG)-avid masses in (a) pretracheal and (b) subcarinal and right hilar regions. *See page 138.*

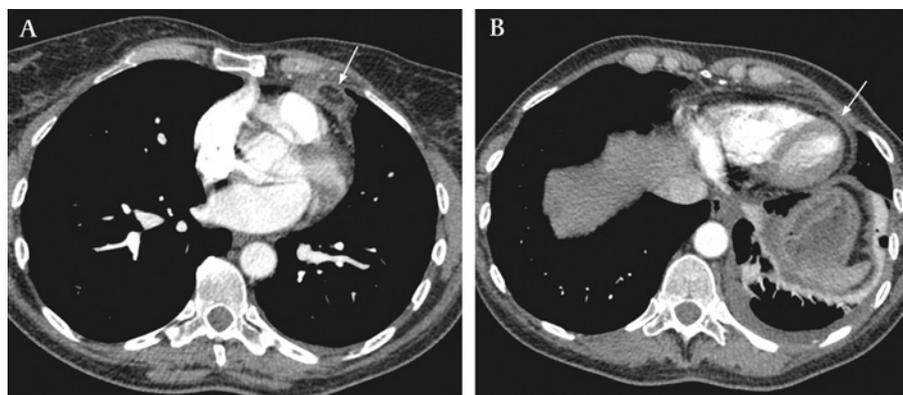


Figure 2 Contrast-enhanced axial CT images. Pericardial thickening (arrow) and pleural effusion. *See page 188.*

Interval training in COPD

Pulmonary rehabilitation with physical training has a number of important benefits in COPD, although many patients are unable to sustain higher intensity training that is associated with greater improvement. There has therefore been interest in the use of interval training where repeated bouts of high intensity exercise are interspersed with recovery periods. Beauchamp and colleagues report a systematic review comparing interval with continuous training in COPD and show that there was no difference in exercise capacity or quality of life between the two training modalities. Interval training may be considered as an option in patients unable to tolerate higher intensity continuous exercise. *See page 157.*