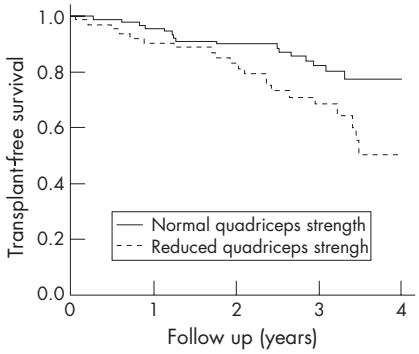
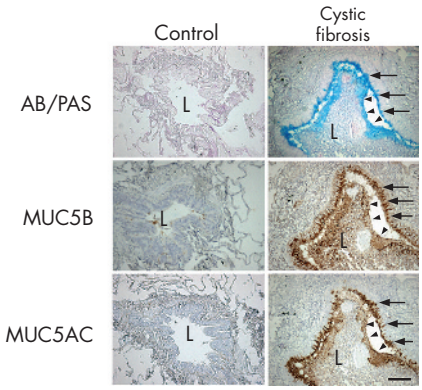
airwaves

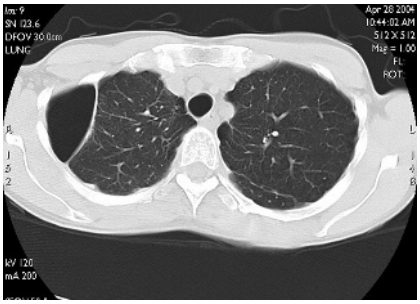
Wisia Wedzicha, *Editor in Chief*



Transplant-free survival for patients with normal and reduced quadriceps strength, as defined by a quadriceps maximal voluntary contraction force >120% or <120% of bady mass index. The curves are significantly different, p=0.017.



Sections from a control and a CF subject stained with AB/PAS (for mucous glycoconjugates, blue) or MUC5B or MUC5AC (brown). The airway lumen (L) is empty and no staining for mucins is observed in the control subject. In the CF subject there is strong staining for the mucins at the periphery of an obstructing plug (**arrowheads**), and in the epithelium (**arrows**).



CT image showing loculated right sided pneumothorax. From case report by Currie and colleagues on chronic pneumothorax and fitness to fly (see page 187).

MUSCLE WEAKNESS AND PROGNOSIS IN COPD

It is recognised that standard physiological indices poorly predict prognosis in COPD. There has been much interest in extra-pulmonary manifestations of COPD, especially skeletal muscle weakness that is commonly found in COPD. In this month's *Thorax* we publish a study by Swallow and colleagues relating quadriceps muscle strength to COPD mortality. The results show that quadriceps maximal voluntary contraction force measured in COPD patients is a powerful prognostic factor. This result is consistent with previous observations that exercise capacity also determines COPD mortality. The authors conclude that this easily performed measure may identify COPD patients at greater risk of death. In the accompanying editorial Steiner points out that the situation is particularly complex in that the skeletal muscle dysfunction occurs on a background of age related sarcopenia (Steiner also explains that the term sarcopenia originates from Greek and means ''poverty of the flesh''). More understanding of these mechanisms is now needed as muscle wasting is clearly an important target for intervention in COPD.
See pages 101 and 115

MUCINS AND PLUGGING IN CF

Cystic fibrosis (CF) is one of our most important respiratory genetic disorders, yet study of the pathobiology of the disease has been hampered by difficulty in studying small airways in this condition. In this issue, Burgel and colleagues report on structural changes and plugging in small airways in CF patients, taking advantage of samples obtained at lung transplantation. They show elegantly that at the time of transplantation in advanced CF, most of the small airways are plugged and mucins, which are complex glycoproteins, contribute to the airway plugging. The data also indicates that recruited neutrophils may be involved in this mucin secretion and mucin and Interleukin (IL)-8 co-localise in the airway epithelium. This study suggests a number of mechanisms involved in the pathogenesis of CF.
See page 153

LAM AND AIR TRAVEL

Patients with lymphangioleiomyomatosis (LAM) are prone to pneumothorax, yet there is little information on air travel in this patient group. A questionnaire assessing air travel was sent to women listed in the US LAM and UK LAM Action registry. Of this study group, 35% had been advised by healthcare professionals to avoid air travel. The main adverse events during air travel were chest pain (12%) and shortness of breath (14%) and pneumothorax reported in only 2%. Although many women had been advised not to travel, most patients had no major problems with air travel. Care needs to be taken with patients who are particularly symptomatic prior to travel.
See page 176

ATTITUDES TO LUNG CANCER SCREENING

There is no recommended screening programme for lung cancer, but there is now considerable interest in the use of low dose CT for screening. However, the implications of such programmes specifically directed have not been addressed. In this month's *Thorax*, Silvestri and colleagues report on a US interview survey of 2001 people. Current smokers were less likely than never smokers to consider CT screening for lung cancer and less likely to believe that early detection is beneficial. The authors concluded that there may be substantial problems in compliance with lung cancer screening programmes. In the accompanying editorial Spiro outlines the complexity of lung cancer screening and its evaluation. He concludes that this is a very important issue in lung cancer management and requires detailed research.
See pages 105 and 126