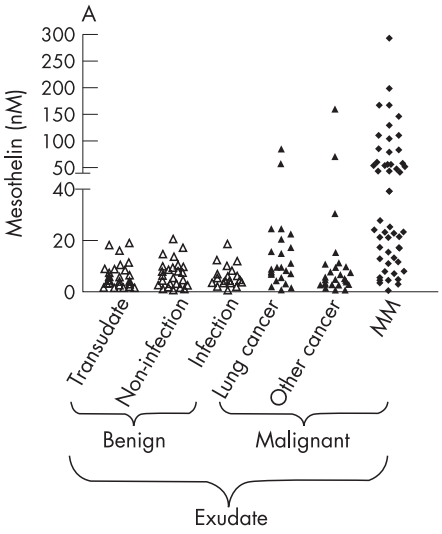
airwaves

Wisia Wedzicha, *Editor-in-chief*

MESOTHELIN IN PLEURAL EFFUSIONS

As Lee points out in his accompanying editorial to the paper by Creaney and colleagues, 150 000 patients develop a pleural effusion in the UK each year and the differential diagnosis poses a challenge because over 50 disorders need to be considered. Serum soluble mesothelin related protein, or ''mesothelin'', has been shown to be a specific, but moderately sensitive, marker of the presence of mesothelioma. Creaney and colleagues show that measurements of mesothelin in pleural and/or peritoneal effusions can be useful in the differential diagnosis of mesothelioma in patients presenting with effusions (see figure). Lee concludes his editorial by pointing out that mesothelin is a useful marker for epithelioid mesothelioma, but not for other histological types of mesothelioma and further markers need to be developed to increase the diagnostic efficiency.

See p 561 and 569



Mesothelin concentrations in pleural effusions of patients, defined as transudate or exudate in nature and as benign or resulting from malignancy.

BIOMARKER PANELS IN COPD

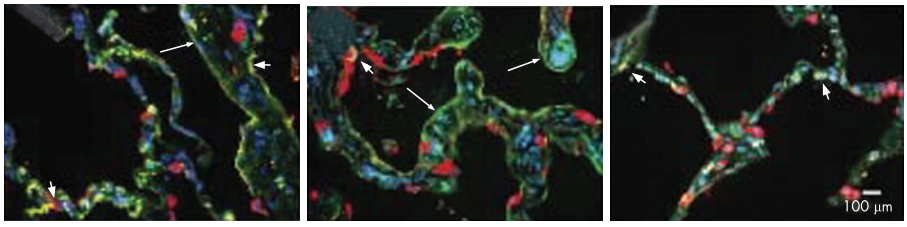
We now recognise that chronic obstructive pulmonary disease (COPD) has an associated significant systemic inflammatory component and thus there has been considerable interest in detecting systemic biomarkers that can be easily measured and reflect disease activity. In this month's *Thorax*, Pinto-Plata and colleagues report on the use of protein microarray technology to detect markers in well-characterised patients with COPD. Analysis showed a selected panel of 24 biomarkers that correlated with FEV_1, transfer factor, 6 min walk, body mass index and exacerbation frequency. The authors also report that this biomarker panel could distinguish patients with COPD from those without the condition.

See p 595

PULMONARY COAGULOPATHY IN LUNG INJURY

Intra-alveolar fibrin deposition is an important feature of acute lung injury (ALI), although the cellular and molecular mechanisms that lead to this pro-coagulant state are not fully elucidated. In this month's *Thorax*, Bastarache and colleagues report on the role of tissue factor (a 47 kDa glycoprotein that is a potent stimulator of the extrinsic coagulation pathway) in patients with ALI/acute respiratory distress syndrome (ARDS), and patients with pulmonary oedema as controls. They show that tissue factor is upregulated after exposure to inflammatory stimuli and this may contribute to the intra-alveolar fibrin deposition seen in ARDS (see figure). In the accompanying editorial, Schultz and Levi discuss these results and point out that these findings are similar to those found systemically in sepsis, where anticoagulants have been shown to be beneficial. This study may thus lead to new therapies and preventative measures in critically ill patients.

See p 563 and 608



Double immunofluorescence staining to show alveolar epithelial cell tissue factor. For further details see p 608

INFECTIONS, ANTIBIOTICS AND ALLERGIES

It has been suggested that allergies and atopic disease are a consequence of less exposure to infections in early childhood. In this issue, Harris and colleagues report on a birth cohort study of children recruited before birth and seen annually until age 8 years. Although very high rates of recorded early infections and antibiotic prescriptions were found, which were higher than in their parents who were born 35 years earlier, there was no relationship between infections, antibiotics and the subsequent development of atopy or associated allergic disease.

See p 631