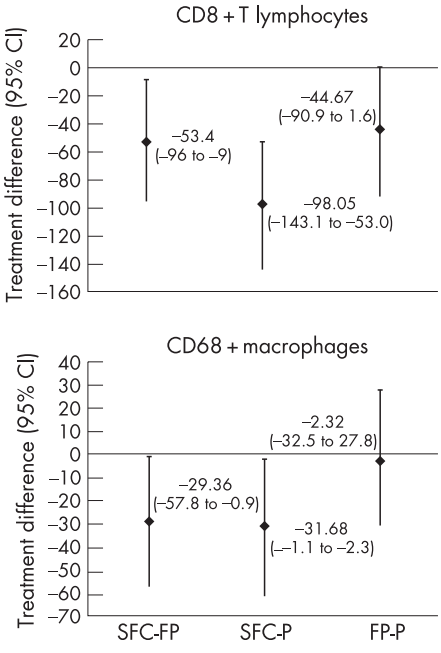
airwaves

Wisia Wedzicha, *Editor-in-Chief*

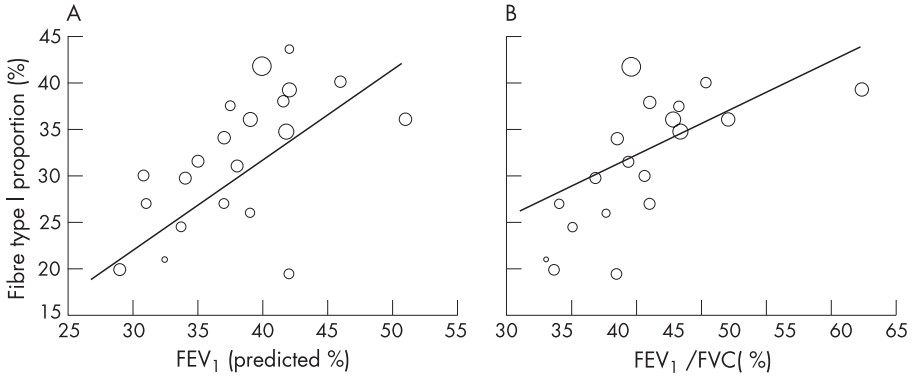
COMBINATION ANTI-INFLAMMATORY THERAPY IN COPD

We now know from the recent TORCH data that long acting β_2 agonists, inhaled corticosteroids and the combination of these treatments all reduce exacerbations in patients with COPD. However, the relative anti-inflammatory activity of these different treatments has not been fully evaluated. In this month's *Thorax*, Bourbeau and colleagues report on a study comparing the effect of the inhaled salmeterol/fluticasone (SFC) combination with inhaled fluticasone (FP) and placebo on airway inflammation. SFC reduced airway CD8+ cells compared with placebo, but this effect was not seen with FP alone. CD68+ macrophages were also reduced by SFC but not FP (see fig). Airway neutrophils and eosinophils were not affected. As Barnes points out in his accompanying editorial to this paper, the fact that a combination of long-acting β_2 agonist and inhaled corticosteroid can reduce airway inflammation should encourage those developing new anti-inflammatory treatments for COPD.

See p 927 and 938



Treatment differences for CD8+ T lymphocytes and CD68+ macrophages



Relationships between vastus lateralis fibre type 1 proportion and (A) FEV_1 and (B) ration of FEV_1 to FVC

MUSCLE FIBRE TYPES IN COPD

Gosker and colleagues remind us at the start of their paper in this month's *Thorax* that peripheral muscle dysfunction is a common feature of COPD. This is associated with a shift from type 1 to type 2 fibres in the vastus lateralis muscle, or from slow twitch to fast twitch accompanied by reduced activity of enzymes involved in oxidation. However, there is little information as to how these muscle changes are related to disease severity because of small study sample sizes. Gosker and colleagues describe a systematic review to study these adaptations further and show that reduction in the proportion of type 1 fibres in the lower limbs is strongly associated with COPD disease severity. This paper is also valuable as the authors provide us with reference (physiological) fibre type composition in the typical COPD age range of 60–70 years and anything beyond that can be assumed as pathological (see fig).

See p 944

HIV INFECTION AND THE ICU

At the start of the HIV epidemic, infected patients were often not admitted to the intensive care unit (ICU) when critically ill, but with the advent of highly active antiretroviral therapy (HAART) the outcome has improved. In this issue, Dickson and colleagues report on the survival of HIV patients since the introduction of HAART. The authors show that the outcome for patients was good and importantly was similar to that for general medical patients. Over a quarter of patients had a new diagnosis of HIV, either just before or during the ICU admission.

See p 964

CPAP AND INSULIN RESISTANCE

Obstructive sleep apnoea (OSA) is associated with insulin resistance and the more severe the OSA, the greater the insulin resistance, independent of concomitant obesity. West and colleagues describe a randomised controlled study of nasal continous positive airway pressure (CPAP; including placebo CPAP) on insulin resistance in 42 men with newly diagnosed OSA and type 2 diabetes. The results showed that although the OSA patients improved on CPAP, there was no change in measures of glycaemic control or insulin resistance.

See p 998