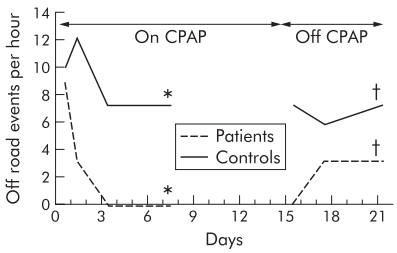
airwaves

Wisia Wedzicha, *Editor in Chief*

DRIVING PERFORMANCE IMPROVES QUICKLY AFTER CPAP THERAPY

Traffic accidents are a major issue in patients with sleep apnoea and nasal CPAP (continuous positive airway pressure) therapy improves driving performance. However, information is required on the time course of improvement so that patients can be advised when to restart driving after starting CPAP or whether they can drive safely after missing treatment. Turkington and colleagues used a simulator to study the time course of driving performance after starting CPAP therapy. They found that driving performance had significantly improved by 7 days and that, after stopping CPAP therapy, the improvements were maintained for up to 1 week after withdrawal although the effect size was now smaller. This study provides some valuable information on driving performance for all of us who treat patients with sleep apnoea.

See page 56



Time plot of median tracking error in CPAP treated patients and controls: *significant difference between the two groups at day 7 while treated group on CPAP; †significant difference persisted after CPAP was discontinued for 7 days in the treated group (both Mann-Whitney test).

BLEOMYCIN INDUCED LUNG FIBROSIS AND AT1 RECEPTOR

Angiotensin II acts through the angiotensin type 1 receptor (AT1) to promote cardiac and renal fibrosis and, in this issue of *Thorax*, Otsuka and colleagues extend this work into a study of lung fibrosis using the rat bleomycin model. The authors show that, after bleomycin, there is overexpression of AT1 in a number of lung inflammatory cells, aleveolar type II cells, and fibroblasts and a rise in TGF-β_1 production. They also administered the AT1 antagonist candersartan and found that this was associated with a reduction in inflammatory cells and expression of TGF-β_1 and morphological changes were improved after day 21. This study shows that angiotensin II—through the AT1 receptor—promotes bleomycin induced lung injury and fibrosis.

See page 31

COMPLEX RELATION BETWEEN FETAL GROWTH AND AIRWAY FUNCTION IN INFANCY

Low birth weight has been shown to affect airway function in adult life, although the relation of fetal growth to airway function in early childhood is not understood. In this issue of *Thorax* Dezateux and colleagues report on a study in which lung function was measured in healthy white infants of both low and appropriate birth weight. The results showed that, if the infant was of low birth weight, the mother was more likely to smoke and to be of lower social class. Airway function tests were reduced in infants of low birth weight for gestation and in those with mothers who were smokers, where the mother was in a manual occupation, and where there was a family history of asthma. This interesting study emphasises the complex nature of the relationship between birth weight and subsequent airway growth and development.

See page 60

OZONE, GENES AND ANTIOXIDANTS IN ASTHMATIC CHILDREN

Asthmatic children in Mexico, where the ozone levels are high, have been shown to have ozone related decrements in airway function and supplementation with the antioxidants vitamins C and E reduced this fall in lung function. In this month's *Thorax*, Romieu and colleagues extend their original observations in asthmatic children and report that deletion of the glutathione-S-transferase M1 (*GSTM*) gene, which is important in oxidative stress, is associated with a greater ozone related decline in forced expiratory flow. They also show that antioxidants have a greater benefit in children with a genetic deficiency of *GSTM1*. These interesting results are further discussed in the accompanying editorial by Hubbard and Fogarty, and the authors make the point that the increased risk of ozone can be overcome by simple dietary supplementation. They conclude that further study is required of the interaction between diet, asthma, and oxidative stress.

See pages 3 and 8

CHILDHOOD ANTIBIOTICS DO NOT CAUSE ALLERGIC DISEASE

It has been suggested that early contact in life with microbes may protect against asthma and other allergic disease and thus the use of antibiotics in children may predispose to these conditions. In this issue of *Thorax* Masoli and colleagues report a retrospective study of 746 adults in which information was obtained on antibiotic prescription in the first 5 years of life. The authors found no association between early antibiotic prescription—either for all antibiotic use or for antibiotics prescribed at different ages—and atopy. They did, however, find an age related association between asthma and antibiotics, which was explained by the antibiotics being used to treat lower respiratory infections.

See page 16