Airwaves

Wisia Wedzicha, *Editor-in-Chief*

Lung transplantation: role of dendritic cells?

The success of lung transplantation is affected by chronic allograft dysfunction caused by chronic rejection. Dendritic cells regulate immune processes and may play a part in rejection, though few studies have addressed such mechanisms in lung transplantation. Ward and colleagues study the effect of epithelial cell conditioned media from lung allografts on monocytes differentiating into dendritic cells and macrophages. The results show that the epithelial cells drive production of macrophage like cells from monocytes rather than dendritic cells and may thus restrain airway dendritic cells and potential alloimmunity. ***See page 430***

Low dose theophylline at COPD exacerbation

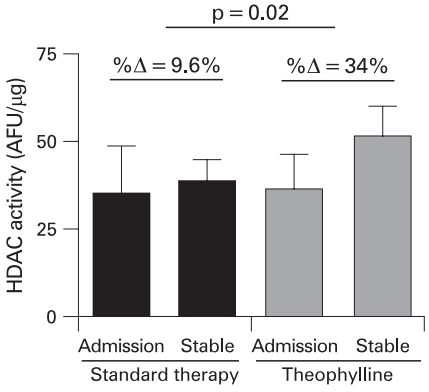
COPD exacerbations are associated with increased airway and systemic inflammation. Activity of histone deacetylase (HDAC) has been shown to be reduced in COPD and affects the anti-inflammatory activity of steroids. Theophylline activates HDAC and may restore steroid responsiveness. In this month's *Thorax*, Cosio and colleagues report a randomised study of low dose theophylline in addition to standard therapy at hospitalised exacerbations and continued for 3 months. Addition of theophylline increased HDAC activity and reduced Interleukin (IL)-8 concentrations and TNFα compared to those receiving standard therapy only. The authors conclude that these findings need further investigation in adequately powered clinical trials. ***See page 424***

Systemic inflammatory patterns and asthma heterogeneity

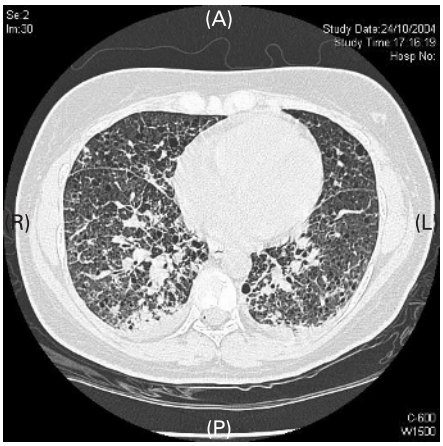
In his editorial, Gibson points out the heterogeneity of the asthmatic syndrome and differences in asthma prevalence and potent gene environment interactions. There has been considerable interest in the systemic inflammatory response in COPD and Nadif and colleagues describe different asthma phenotypes based on systemic inflammatory patterns. Clinical presentations were different depending on whether the blood eosinphil and neutrophil counts were high or low. COPD associated symptoms, for example, chronic sputum were associated with nuetrophilic inflammation. Blood samples are easy to obtain and thus systemic inflammatory patterns can be assessed easily in all age groups with asthma. Gibson also discusses that future studies will have to evaluate the agreement between tissue and blood phenotype. ***See pages 369 and 374***

Does CT screening affect smoking?

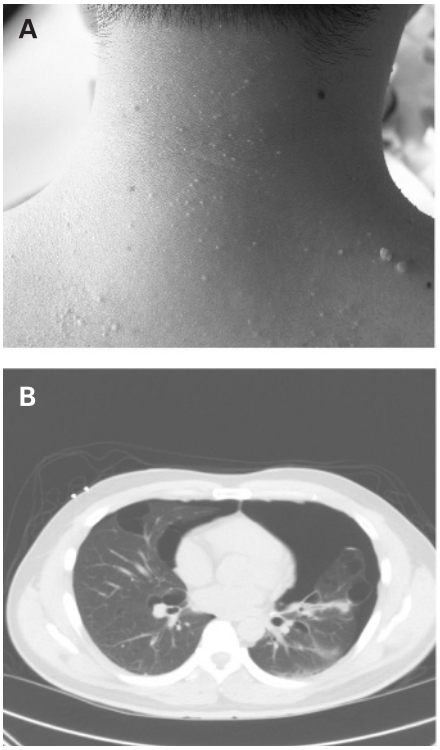
There is currently considerable interest in the role of lung cancer screening using low dose CT scanning in early detection of tumours. However it has been suggested that screening could provide some people with a "license to smoke" if they have clear scans, though smoking cessation may be promoted during the screening programme. In this issue, Ashraf and colleagues report on smoking habits in the controlled Danish Lung Cancer Screening Trial. At 1 year smoking quit rates were similar in the CT and control groups. However quit rates were higher and relapse rate lower among subjects with initial CT findings that required a repeat CT scan 3 months later. In the accompanying editorial, Clark and Jett discuss the results and implications for smoking cessation programmes. ***See pages 369 and 388***



Mean SEM values of histone deacetylase (HDAC) activity in patients with a COPD exacerbation before and 3 months after receiving standard therapy with and without low dose theophylline. *(See page 424).*



CT pulmonary angiography showing cysts, small bilateral effusions and thickened interlobular septa.



(A) Papular lesions on the upper back and neck. (B) CT scan of the chest showing bilateral pneumothoraces and basilar and peripheral predominant thin-walled cystic lesions. *(See Pulmonary Puzzle page 398).*