

Conference report

British Thoracic Society Winter Meeting 1999

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The 1999 Winter Meeting of the British Thoracic Society (BTS) was the largest yet and the research presented covered a wide range of topics in respiratory medicine. This article reviews some of the highlights of the work presented at the meeting.

Non-invasive ventilation and sleep disordered breathing

At the BTS meeting in 1998, Paul Plant *et al* presented a paper demonstrating that non-invasive ventilation (NIV) may be used effectively in a variety of hospital settings for the treatment of acute exacerbations of chronic obstructive pulmonary disease (COPD).¹ At the 1999 meeting the cost effectiveness data for this study were presented and it was estimated that a saving of £2829 per patient might be anticipated by a Trust investing in NIV.² In addition, there was some evidence of a survival advantage at 12 months in favour of NIV.³

The subject of sleep disordered breathing and cardiovascular disease, and the implications for funding sleep services, formed the basis of a lively debate at the 1997 BTS meeting.⁴⁻⁷ This year Davies *et al* presented evidence that patients with obstructive sleep apnoea (OSA) have higher blood pressure than controls, not only at night but also during the day,⁸ though a parallel study⁹ found no evidence of an increased prevalence of early cerebrovascular disease. Further evidence of the benefits of treating OSA with nasal continuous positive airway pressure was presented in a trial demonstrating improvements in simulated driving tests.¹⁰

Interstitial lung disease

Two potential new treatments for lung fibrosis were reported, both in animal models. The use of the macrolide rapamycin was reported by Simler *et al*¹¹ and the use of the thrombin inhibitor UK-156406 was reported by Howell *et al*.¹² The results of clinical trials are awaited. Two papers provided further evidence of the importance of genetic factors in the aetiology of sarcoidosis. In the first McGrath *et al*¹³ estimated the risk ratio for sarcoidosis among first degree relatives of index cases and found a 16-fold increase in risk compared with the general population. The authors were careful to point out that this effect may be due to genetic factors or shared early life environmental exposures, and they plan to investigate the problem further. In the second paper McGrath

*et al*¹⁴ reported strong links between sarcoidosis and major histocompatibility complex (MHC) genes for a Czech population. Importantly, there is a consistency between these data and previous findings.

Asthma management

Nearly one in five children will use asthma medication at some point in their lives, so teachers need to be educated about the management of asthma. In two papers Pearce *et al*¹⁵ reported the beneficial impact of introducing a policy on asthma treatment to schools on the confidence and quality of acute asthma management. With the asthma guidelines due for review, the paper by Steven *et al* on the goals of people with asthma was timely.¹⁷ This qualitative study found only limited concordance between the goals of patients with asthma and those set out in the guidelines. Quantification of the effect of inhaled corticosteroids on endogenous steroid production remains a hot topic and a study by Wilson *et al*¹⁸ added further fuel to the debate by showing that, in healthy volunteers, the type of propellant used in a metered dose inhaler alters the impact of fluticasone on adrenal suppression.

Lung cancer

The findings of the MRC/BTS randomised trial of immediate versus late radiotherapy for inoperable locally advanced non-small cell cancer were reported¹⁹ and, in patients with minimal symptoms, immediate radiotherapy appeared to offer no benefit in terms of subsequent symptom control and had no survival advantage. This supports current practice in most centres. Many centres now operate multi-disciplinary lung cancer meetings, and Baldwin *et al* showed that accurate database collection from these meetings allows effective audit of practice.²⁰

Tuberculosis

The 1998 National Tuberculosis Survey confirmed a continuing small increase in the incidence of tuberculosis in the UK, which was accounted for by the threefold increase in Black Africans in the population (rate 180/100 000).²¹ Approximately 50% of patients presenting with tuberculosis in the UK are born outside the country, with much of the increased burden of disease falling on London. Some of these patients are co-infected with HIV, although there appears to be undernotifi-

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cation of tuberculosis in the HIV population.²² Ormerod reported his experience of tuberculosis treatment in Blackburn between 1988 and 1997 which showed that, in a closely monitored and adequately staffed service, most patients (95%) will successfully complete self-administered antituberculous treatment with cure and very low relapse rates.²³ Unfortunately, his survey of national services found that only a minority had the nursing and secretarial support necessary to achieve this.²⁴

Cystic fibrosis

This year the dominant theme in cystic fibrosis at the meeting was the detection and treatment of lung inflammation. In patients enrolled in the UK nebulised α_1 -antitrypsin trial the degree of inflammation, however measured, was associated with a worse prognosis.²⁵ Early phase II results from the main trial did not reveal any adverse effects of nebulised α_1 -antitrypsin, but neither was there any evidence of benefit in treated patients.²⁶ There were conflicting reports about the use of exhaled carbon monoxide to measure lung inflammation.^{27–28} Early studies of two novel potential anti-inflammatory treatments using gene therapy were presented. Following direct gene transfer of the anti-inflammatory cytokine IL-10 gene into mouse skeletal muscle, muscle homogenates showed increased levels of IL-10 but serum levels were not increased.²⁹ Also, release of the pro-inflammatory cytokine IL-8 could be inhibited by the overexpression of the NF κ B inhibitor I κ B α in cystic fibrosis airway epithelial cells.³⁰ These “lateral thinking” approaches to gene therapy may provide interesting possibilities for the future.

Papers on the clinical aspects of cystic fibrosis included reports of the use of both non-invasive and invasive ventilation in end stage disease.^{31–32} Non-invasive ventilation was used mainly to buy time for transplantation and only 30% of patients invasively ventilated for potentially reversible respiratory failure survived. Osteoporosis is increasingly being recognised as a problem for adults with cystic fibrosis, and one study reported a beneficial impact of pamidronate infusions in this population.³³

1940s Big Band Music

Our favourite paper was the study by Sally Singh which reported that auditory stimuli in the form of 1940s Big Band Music can increase the exercise performance of patients with COPD without increasing breathlessness.³⁴ The message of considering cultural influences in the development of rehabilitation programmes is an important one. As students of the early 1980s we hope that Sally's influence will still be felt 50 years from now so that, when we hit the treadmills, our rehabilitation programme will include tracks from the “Best of the Buzzcocks”.

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