

## LETTERS TO THE EDITOR

### Mycobacterial infection in patients infected with the human immunodeficiency virus

Dr M Helbert and colleagues (January 1990;45:45-8) reported a 6% incidence of *Mycobacterium tuberculosis* in a case series of 207 patients with AIDS and 34 patients with the AIDS related complex. At Central Middlesex Hospital we have been concerned in the care of 12 patients with AIDS, three of whom had *M tuberculosis*. Two developed tuberculosis a few months before the diagnosis of AIDS; one was an immigrant from sub-Saharan Africa and the other an immigrant from the Indian subcontinent. The third patient, who was white, developed tuberculosis as a late complication of AIDS. Of the remaining nine patients, two were sub-Saharan African immigrants (one of whom developed an infection with *Mycobacterium avium-intracellulare*), one was West Indian, and the other six were white.

Experience in the United States has shown that *M tuberculosis* in patients with AIDS is much more common in groups which have a higher prevalence of previous tuberculous infection.<sup>1,2</sup> A recent prospective study of intravenous drug misusers provided strong support for the idea that tuberculosis in these patients is a consequence of reactivation of latent tuberculous infection rather than a primary infection.<sup>2</sup> We believe that the high prevalence of *M tuberculosis* in our patients was due to the high proportion of ethnic minorities (42%) in whom there is an increased prevalence of tuberculosis. In England and Wales during 1983 the notification rates of tuberculosis for the Indian subcontinent and West Indian ethnic populations were estimated to be 24 times and four times, respectively, that of the white population.<sup>3</sup> In sub-Saharan Africa the risk of infection with tuberculosis is also substantially greater than that of England and Wales.<sup>4</sup>

Dr Herbert and colleagues in their discussion considered only intravenous drug misuse as a possible influence on the prevalence of tuberculosis within their population. No mention was made of the ethnic background of their patients. We believe that this is important in the assessment of *M tuberculosis* in HIV infected patients. Of the 23 HIV positive patients attending Central Middlesex Hospital, nine are from sub-Saharan Africa or the Indian subcontinent and three are intravenous drug misusers, reflecting the demography of the local population.<sup>5</sup> It has recently been suggested that in the United Kingdom people infected with HIV who have not had BCG vaccination should be tuberculin tested and offered prophylactic treatment if they are positive.<sup>6</sup> False negative tuberculin reactions are recognised, however, in HIV positive patients<sup>7</sup> and in symptomatic patients must be combined with a chest radiograph and appropriate bacteriological specimens. The demography of our population suggests that tuberculosis is likely to be a continuing problem. We intend to implement routine tuberculin testing in our patients who have not had BCG vaccination and to offer

antituberculous treatment or prophylaxis as necessary.

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It is now generally accepted that the greater incidence of tuberculosis in patients with AIDS than in the general population is due to breakdown of foci of tuberculous infection acquired before infection with the human immunodeficiency virus (HIV). The incidence of tuberculosis in a group of patients with AIDS will therefore depend mainly on the extent to which the group was infected with tuberculosis before acquiring HIV infection. On this basis further useful epidemiological information might be available from the series presented so successfully from the clinical standpoint by Dr M Helbert and others (January 1990;45:45-8). If the series includes any non-white patients it would be helpful to see an analysis of the incidence of tuberculosis by ethnic group. An analysis of the incidence of tuberculosis by broad age groups in the white ethnic group might also be informative, as those over age 50 years in 1983-8, when this series was collected, were found to be at least 40% tuberculin positive when aged 13 years or more in 1949-50,<sup>1</sup> while those under 30 years of age in 1983-8 were less than 2% tuberculin positive when aged 13 years in the early 1970s.<sup>2</sup> Similar information from other series would also be most helpful in assessing the likely impact of the developing AIDS epidemic on tuberculosis in Britain. Separate analysis by age of other mycobacterial infections in patients with AIDS might help to reveal differences in pattern from disease due to *Mycobacterium tuberculosis*.

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**AUTHORS' REPLY** Of the 15 patients with tuberculosis and HIV infection, one was of Indian origin (age 43), one was of Afro-Caribbean descent but brought up in Britain (age 21) and one was a white man who had lived in central Africa (age 52). The rest of the

patients were white and had lived in Europe all their lives. None of these patients was an intravenous drug user.

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### Assessment of reversibility of airway obstruction in patients with chronic obstructive airways disease

We were interested to read the article by Nisar and colleagues (March 1990;45:190-4) describing reversibility in response to salbutamol and oral prednisolone in patients with chronic airflow obstruction. Their data suggested that a response to 5 mg of nebulised salbutamol, defined as an increase in FEV<sub>1</sub> of at least 15% and 200 ml, could be used as a means of identifying patients likely to respond to treatment with corticosteroids. Such a screening test would be extremely helpful in reducing the time spent performing steroid trials to determine optimal treatment for this group of patients. Our own results, recently published,<sup>1</sup> when analysed according to the criteria used by the Liverpool group do not show the same conclusions, and we are concerned lest chest physicians withhold potentially beneficial treatment in disabled patients with chronic airflow obstruction.

Our reanalysis shows that, of 13 patients who responded to oral prednisolone by increasing their FEV<sub>1</sub> by at least 15% and 200 ml, five (38%) showed no response to 10 mg nebulised salbutamol. When we retain our own criteria for response (a 20% improvement in FEV<sub>1</sub>, or forced vital capacity (FVC) or peak expiratory flow (PEF), over baseline), 19 of 39 responders to prednisolone did not show an improvement in FEV<sub>1</sub> of 15% and 200 ml after 10 mg salbutamol. Hence in our patients the use of response to nebulised salbutamol as a screening test caused us to miss up to half of the patients who showed benefit. The increase in response rate when FVC and PEF are included in the response criteria also suggests that with the use of FEV<sub>1</sub> as the sole physiological measure of response many patients responding to treatment would be missed. Indeed, in our paper only 29 of the 65 responses to treatment (oral prednisolone or inhaled beclomethasone) were in FEV<sub>1</sub>.

We would urge physicians to offer a trial of steroid treatment to all patients with chronic airflow obstruction, and to assess response using FVC and domiciliary PEF monitoring in addition to FEV<sub>1</sub> measurements and subjective measures; otherwise a significant number of patients will be denied the benefits of treatment.

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- Weir DC, Gove RI, Robertson AS, Burge PS. Corticosteroid trials in non-asthmatic chronic airflow obstruction: a comparison of oral prednisolone and inhaled beclomethasone dipropionate. *Thorax* 1990;45:112-7.

**AUTHORS' REPLY** We thank Drs Weir and Burge for their interest in our paper and for raising some important issues. It was helpful

to see the additional data they present. We had been unable to derive this information from their paper<sup>1</sup> as they had reported responses to treatment as percentage change rather than absolute values. Although we both used similar selection criteria, the bronchodilator responses of our populations are different. Thus 21% of our patients, but only 12% of the Birmingham patients, had an FEV<sub>1</sub> response to prednisolone. Moreover, from figure 1 in their paper an appreciable number of patients had a fall in FEV<sub>1</sub> of up to 45% after oral prednisolone. We accept that there are patients who respond to oral steroids but not to nebulised beta agonists—and indeed we described one in our paper. One of our aims was to show the value of giving bronchodilators by nebuliser rather than by metered dose inhaler in detecting later responses to steroids—we still hold this view.

There is considerable uncertainty about the best way to define a bronchodilator response in chronic obstructive lung disease. We chose FEV<sub>1</sub> as our principal variable as it has a well documented variance and has been shown to relate to long term outcome.<sup>2</sup> Neither the variability of FVC and PEF in chronic obstructive lung disease nor the relation of PEF or FVC to long term outcome are well documented. Accepting a change in any one of three variables as a response will increase the likelihood of false positives. It is therefore important to perform long term studies to decide which approach best predicts subsequent morbidity and mortality.

Many patients with chronic obstructive lung disease are treated with blind polypharmacy. We are in complete agreement with Drs Weir and Burge that only by collecting objective data on chronic obstructive lung disease patients will it be possible to select and justify an optimum therapy.

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- Weir DC, Gove RI, Robertson AS, Burge PS. Corticosteroid trials in non-asthmatic chronic airflow obstruction. A comparison of oral prednisolone and inhaled beclomethasone dipropionate. *Thorax* 1990;45:112-7.
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### Primary liposarcoma of the lung in a young woman

There are several points in the article by Dr F Ruiz-Palomo and others (April 1990;45:298-9) which make me question the diagnosis of a primary liposarcoma in such a young patient.

- Microscopically, the authors do not mention what type of liposarcoma they thought this was—that is, well differentiated, myxoid, round cell, or pleomorphic. In addition, the photograph showing the proliferating lipoblasts does not appear convincing to me. The nuclei do not show the indentation or “scalloping” that is seen in typical lipoblasts, where the nuclei are distorted by the lipid droplets. Vacuolation can be seen in many tumours, particularly where there are areas of degeneration.
- There is no comment on the use of special stains. Were fat stains such as oil red used to detect fat, and were any attempts made to detect mucin or glycogen in the tumour by means of the periodic acid-Schiff reaction with or without diastase?
- The immunocytochemical stains used in this case report do not include one of the most useful markers for liposarcoma,

S-100<sup>1</sup> protein. The authors have not included this in their list of antibodies used.

- Electron microscopy is not elaborated on in the article to confirm that the tumour is a liposarcoma.

Liposarcomas are exceedingly rare and unusual in young patients. Therefore to establish a firm diagnosis a combination of strong evidence from light microscopy, fat stains, immunocytochemistry, and electron microscopy is necessary to make a firm diagnosis. Detailed pathological analysis is essential before one can accept such a diagnosis.

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- Hashimoto H, Daimaru Y, Enjiojo M. S-100 protein distribution in liposarcoma. An immunoperoxidase study with special reference to the distinction of liposarcoma from malignant fibrous histiocytoma. *Virchows Arch (Pathol Anat)* 1984;405:1.

**AUTHORS' REPLY** The points mentioned by Dr Sheppard in her letter are obvious and were checked by one of us in the laboratory of pathology. Some data were omitted from our report a consequence of the brevity demanded for case reports. The oil red O staining was indeed positive and the periodic acid-Schiff reactions (with and without diastase) were negative in our case, confirming the presence of fat and the absence of mucin and glycogen in the tumour. We included in the paper a list of the immunocytochemical stains used to exclude a non-lipomatous origin of the tumour, but we are quite sure about the diagnosis of liposarcoma on the basis of light microscopy and positive fat staining, with confirmation by electron microscopy (the last sentence of the case report states clearly, “The diagnosis of liposarcoma was confirmed by electron microscopy”). *Thorax* limits the number of illustrations in a case report, but we would be happy to send Dr Sheppard an electron micrograph of the liposarcoma in our case.

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## BOOK NOTICES

**Proceedings of the Eighth Phillip Zorab Scoliosis Symposium, London, October 1988.** Edited by David Siggler, David Harrison, Michael Edgar. (Pp 150; £30.) Kent: Phillip Zorab Scoliosis Research Fund, 1988. ISBN 0-9515-75201.

Surgery for scoliosis and enthusiasm for screening programmes have tended to run ahead of hard evidence that such activity is beneficial. This conference, held in late 1988, was designed to bring together the most recent data on the natural history of scoliosis and the effects of treatment. In this aim it was largely successful. The published proceedings, however, are rather variable in content. There are 32 papers covering screening, newer imaging techniques, prognosis in non-idiopathic scoliosis, cardiopulmonary consequences, and the effects of both surgical and non-surgical treatment. Some contributions are typically meaty and well referenced—for example, Burwell's review of screening for scoliosis. Some others are little more than abstracts and a few are not referenced. There is no documentation of the

discussions following the papers. Unfortunately the spoken word often does not transpose well into text and some articles would have gained by the inclusion of the graphs and tables presented at the meeting. It was not the intention of the symposium to cover the respiratory management of scoliosis in any detail and those looking to the book for guidance in this area are therefore likely to be disappointed. The relatively high cost, £30, for 150 pages is a further deterrent. Nevertheless, for any respiratory physician interested in scoliosis these proceedings do provide a useful and up to date review, particularly of the epidemiological and orthopaedic aspects of prognosis in scoliosis.—IDAJ

**Airway Obstruction and Inflammation.** D Olivieri, S Bianco. (Pp 287; £116.30.) Basel: Karger, 1990. ISBN 3-8055-5006-5.

This book reports the proceedings of a meeting on airway obstruction and inflammation sponsored by a pharmaceutical company and held in Florence in 1988. The book is divided into four sections, which deal with basic mechanisms, clinical aspects, treatment, and a round table discussion on airway obstruction. Each section is made up of a mixture of “state of the art” reviews and original articles from Italian investigators. The reviews include chapters on neural control of airway vasculature, airway inflammation in asthma, asthma deaths, airway beta receptor function, non-isotonic aerosol challenges, immunotherapy in asthma, chronic bronchitis, emphysema, and treatment of airways obstruction. These chapters have been written mainly by British, Australian, and Italian authors and are in general informative and well written. Almost invariably, however, more extensive reviews on the same topics and written by the same authors have been published elsewhere. A few of the original articles contain interesting data not published elsewhere, though one is conscious that these articles have not undergone peer review. The book is well presented but is very expensive. In view of the lack of substantial new information and its cost I would not recommend the book to individual clinicians or those engaged in research in asthma or chronic airflow obstruction. Nor would I consider that it should have a high priority for purchase by the hospital library.—NCT

## NOTICE

### Scadding-Morrison Davies joint fellowship in respiratory medicine 1991

This fellowship is available to support visits to medical centres in the United Kingdom or abroad for the purpose of undertaking studies related to respiratory medicine. Medical graduates practising in the United Kingdom, including consultants and irrespective of the number of years in that grade, may apply. Applicants should submit a curriculum vitae with a detailed account of the duration and nature of the work and the centres to be visited, confirming that these have agreed to provide the facilities required and giving the sum of money needed for travel and subsistence. Up to £12 000 can be awarded to a successful applicant, or the sum may be divided to support two or more applicants. Applications should be sent by 31 January 1991 to the secretary, Dr I A Campbell, Llandough Hospital, Penarth, Cardiff CF6 1XX.