LETTERS TO THE EDITOR

Endobronchial nocardial infection

Further to the recent case report of Drs McNeil, Johnson and Oliver (December 1993;**48**:1281–2), we have seen another patient with nocardial chest infection and endobronchial involvement. This is the fifth reported case. A previously well 25 year old Australian aboriginal man presented with a non-resolving right lower lobe pneumonia. He had a five pack year history of smoking and had been admitted to a peripheral hospital and treated with intravenous amoxycillin and erythromycin for two weeks. Sputum cultures had susequently grown *Nocardia* and he was therefore transferred to our hospital.

On examination he was febrile to 38°C, and auscultation revealed right lower zone crepitations. He produced 200 ml blood-stained sputum per day. Oral trimethoprim/sulphamethoxazole was commenced in a dose of 640 mg/3200 mg per day. The fever settled but sputum production and chest signs persisted. Bronchoscopic examination revealed a polypoid "tumour" partially obstructing the posterobasal segment of the right lower lobe. Biopsy material from this revealed filamentous organisms and florid active chronic inflammation. Culture of the biopsy specimen confirmed the organisms as *Nocardia* and bronchial washings also grew *Nocardia*. Intravenous amikacin was added with resolution of chest signs and cessation of sputum production.

No dissemination of *Nocardia* was seen after bronchoscopy, possibly because he had been on treatment for 10 days before the procedure. As with the previous case there was no underlying defect of humoral or cell-mediated immunity. However, he consumed an average of 200 mg alcohol per day. He will remain on trimethoprim/sulphamethoxazole for at least nine months.

This case shows once again that endobronchial "tumour" can be due to *Nocardia* even in patients with normal immune systems.

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Fluticasone propionate *v* beclomethasone dipropionate (BDP) in moderate to severe asthma

I read with interest the paper by L Fabbri *et al* (August 1993;**48**:817–23) which compared the above drugs in patients with moderate to severe asthma. The authors found a small (15 l/min) peak expiratory flow (PEF) advantage in the fluticasone group compared with BDP amounting to about 4% of the average morning PEF of these patients. I calculate from figure 1 and table 1 that the morning PEF of the fluticasone group increased from 74% predicted to 81% predicted, whereas in the BDP group PEF increased from 73% to 78% predicted.

The symptom scores were similar on both medications but there was said to be a slight excess of "severe" asthma (not clearly defined) in the group given BDP. There were 13 "severe" exacerbations in the BDP group and three "severe" exacerbations in the fluticasone group. However, a further four patients using fluticasone withdrew from the study because of poor asthma control compared with only one patient using BDP, and a further 15 patients (all using fluticasone) had to increase their dose of inhaled steroid because of poor asthma control. The total number of patients with poor asthma control was therefore 22 in the fluticasone group and 14 in the BDP group. Neither drug had any significant effect on adrenal function.

The authors conclude that fluticasone may be more effective than BDP and they recommend it for long term use in asthma because of the marginal benefits shown in the study, and also because of a theoretically superior side effect profile which was not demonstrated in their own study.

Surely it would be equally logical to conclude that both groups of patients fared very well on high dose inhaled steroid treatment and any difference between the two groups was disappointingly small considering that the fluticasone group was supposedly given twice the biologically effective dose of inhaled steroid. Most patients would have fared equally well on either preparation although there was a suggestion that a small number of patients who were prone to recurrent exacerbations might fare better on the more potent treatment.

Given that this trial was commercially commissioned and funded, one can understand the enthusiasm for the new agent which is expressed in the discussion. However, the discussion omits to mention that one year's treatment with fluticasone 1500 μg per day would cost £925 compared with £253 per year for the same dose of BDP. I feel that it would be premature (and very expensive) to transfer patients from BDP to fluticasone on the basis of this trial. I would have difficulty convincing my Pharmacy Therapeutics Committee that a 4% gain in peak flow with no difference in symptom scores or side effects was worth a 265% increase in cost.

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AUTHORS' REPLY Dr O'Driscoll suggests that the improvement in peak flow resulting from fluticasone propionate treatment in patients with moderate asthma is minimal when compared with that induced by beclomethasone dipropionate (BDP), particularly when one considers the associated increase in treatment cost. After reanalysing our data, Dr O'Driscoll also suggests that fluticasone was no more effective than BDP in reducing the overall exacerbation rate (as opposed to severe exacerbations). We thank him for his interest in our paper and welcome the opportunity to clarify, as far as possible, the issues he has raised.

Effect of treatment on PEF: patients entered this study at a time when their asthma was controlled, not during a period of exacerbation (an exclusion criterion). In addition, we compared the effect of treatment with fluticasone with that of high dose BDP – that is, the most effective antiasthma treatment currently available. For these reasons we believe that we could not have expected anything other than a relatively small increase in PEF. Nevertheless, PEF increased from 74% to 81% after treatment with fluticasone, and from 73% to 78% after BDP treatment. For FEV_1 the increased effect was even greater (0·25 *v* 0·16 l increase with fluticasone and BDP respectively). Thus, while we did not observe the 2:1 efficacy ratio reported in previous studies,[1–3] we did find a greater effect of fluticasone on lung function.

Reduction in asthma exacerbations: table 2 of our paper lists the true exacerbation rates. Dr O'Driscoll selected only the severe exacerbations and then added to these those patients who withdrew and also those whose fluticasone dose had been changed during the study. It is invalid to do this, however, as these latter groups were, in fact, subsets of the patients who had exacerbations. For example, where the fluticasone dose had been increased this had been done as a result of an exacerbation and these patients would have been included in the table as such. In addition we have noticed an error in the original publication; the withdrawals were, in fact, four in the BDP group and one in the fluticasone group, rather than the reverse as described in the results section (p 820). We apologise for the oversight.

Costs: the study was designed to compare the efficacy of the two treatments rather than as a cost comparison. Such a comparison would require a more detailed analysis of the available data to investigate whether, for example, the reduction in costs of treating exacerbations of asthma would balance the increase in the cost of drug treatment. In addition, there are increasing numbers of published studies which show that fluticasone can be used at half the BDP dose with equivalent efficacy. It may therefore be more appropriate to leave the cost/benefit conclusions to the pricing authorities.

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1 Dahl R, Lundback B, Malo JL, *et al*. A dose-ranging study of fluticasone dipropionate in patients with moderate asthma. *Chest* (in press).
2 Barnes NC, Marone G, Di Maria GU, Visser S, Utama I, Payne SL. A comparison of fluticasone propionate 1 mg daily, with BDP 2 mg daily in the treatment of severe asthma. *Eur Respir J* 1993;**6**:677–84.
3 Woodcock AA. High-dose inhaled fluticasone propionate: clinical experience to date. *Eur Respir J* 1990;**3**(Suppl 10):250s–251s, S925.

Accuracy of CT appearances of fibrosing alveolitis

In answer to the question raised by Drs Selby and Brown (December 1993;**48**:1289) we have recalculated the sensitivity and specificity of the high resolution computed tomographic (CT) appearances of cryptogenic fibrosing alveolitis, including only those cases with histopathological confirmation of the diagnosis.[1] Contrary to their dogmatic assertion that the inclusion of cases without histological confirmation "results in an overestimate of the diagnostic usefulness of CT scanning", when this is done the performance of high resolution CT scanning actually improves: sensitivity 91% (compared with 89% for the whole group) and specificity