

Correspondence

Atopy, immunological changes, and respiratory function in bronchiectasis

SIR,—Dr MB Murphy and others (March 1984;39:179) found no serum IgG subclass deficiencies in a study of 23 patients with bronchiectasis and commented that they knew of no other studies of IgG subclasses in this condition.

At the 1983 summer meeting of the British Thoracic Society we presented the results of IgG subclass estimations in 40 patients with bronchographically proved bronchiectasis and 40 patients with recurrent acute respiratory infections.¹ All patients had normal or raised total IgG. We found seven patients with serum IgG₂ concentrations of 0.04–0.57 g/l, below our normal range (1.1–10.7 g/l), of whom two had bronchiectasis. Five of the seven had concomitant IgA deficiency (one with bronchiectasis) and two had undetectable IgG₄ (one with bronchiectasis). There was no clinical difference between the patients with IgG subclass deficiencies and those with normal or raised levels.

Hence IgG subclass deficiencies can be found in patients with bronchiectasis. Patients with IgG₂ deficiency have increased susceptibility to recurrent pyogenic infections,² and have been reported to benefit from immunoglobulin replacement therapy,^{2,3} and therefore we consider the detection of such deficiencies to be important.

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¹ Stanley PJ, Cole PJ. IgG₂ deficiency in chronic and recurrent respiratory infections. *Thorax* 1983;38:703.

² Oxelius V-A. Chronic infections in a family with hereditary deficiency of IgG₂ and IgG₄. *Clin Exp Immunol* 1974;17:19–27.

³ Schur PH, Borel H, Gelfand EW, Alper CA, Rosen FS. Selective gamma-G globulin deficiencies in patients with recurrent pyogenic infections. *N Engl J Med* 1970;283:631–4.

**This letter was sent to the authors, and Professor Fitzgerald replies below

SIR,—We were very interested in the findings of Drs Stanley and Cole, which appeared in abstract form after submission of our paper. The combined data from the two studies give a broad perspective of the importance of immunoglobulin and immunoglobulin subclass deficiency in bronchiectasis. Clearly, our study groups were somewhat different given the very high prevalence of IgA deficiency in the Brompton group, perhaps reflecting specialised tertiary referral to that unit. The data based on a combined total of 63 patients with bronchiectasis show that immunoglobulin subclass deficiency may occasionally contribute to the pathogenesis of bronchiectasis in that two

patients had IgG₂ deficiency, one of whom had concomitant IgA deficiency. We are certainly in agreement with the therapeutic implications outlined by Drs Stanley and Cole and, indeed, made these very points in our paper.

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Role of lung scanning in assessing the resectability of bronchial carcinoma

SIR,—We are concerned with the practical, surgical implications for patients with bronchial carcinoma in the report by Dr DA Ellis and his colleagues (April 1983;38:261–6). Their conclusions state that for centrally placed tumours perfusion of 25% or less in the affected lung is likely to be associated with unresectability and that “The addition of lung scanning to the preoperative evaluation of selected patients with bronchial carcinoma should help to reduce the number of patients undergoing unrewarding thoracotomy.” The authors base this major assumption on the results from only six patients, one of whom had a successful resection. To add any credibility to their statement it should be expected that this one patient would have the highest perfusion in the group, but in fact the patient had only 2% perfusion in the diseased lung.

Since 1980 in this regional thoracic surgical unit we have regularly undertaken quantitated ventilation and perfusion lung scans in patients with bronchial carcinoma considered to be of poor operative risk. During this period we have had seven patients with centrally placed tumours and reduced perfusion which were technically resectable on clinical, radiographic, and bronchoscopic assessment. The percentage perfusion for the lung containing the tumour, surgical outcome, tumour size, and reason for inoperability are shown in the accompanying table. Four out of seven patients with considerably reduced perfusion had a successful lung resection—these findings are in contradiction to those of Dr Ellis and his colleagues. There was no relationship between the surgical outcome and either the degree of impairment of lung perfusion or tumour size in our patients.

We believe that quantitated lung imaging in carcinoma of the bronchus is best reserved for estimating postoperative lung function¹ and not in determining tumour resectability, no matter what the level of perfusion. No patient with lung carcinoma should be denied potentially curative surgery on the basis of an unfounded statistical probability.

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