584 aneurysms of the aorta. Although these chapters are excellent, in a book on thoracic surgery this space might have been better occupied by discussion of such items as the medical management of ischaemic heart disease in patients undergoing thoracotomy, which is an everyday problem, and an outline of the anaesthetic problems encountered in tracheal surgery, where close cooperation between surgeon and anaesthetist is crucial. This book should certainly be on the shelf of every medical library and is likely to be read by

surgeons rotating through cardiothoracic units. It provides a

solid foundation for those embarking on a career in thoracic

## Correspondence

## Desmoplastic mesothelioma

SIR,—Dr T Machin and colleagues (February 1988;43:155-6) provide a useful platform for the discussion of the critical histopathological assessment of mesotheliomas and their subtypes, particularly the desmoplastic variant. They correctly emphasise the difficulties of diagnosis with small biopsy specimens but are misleading in their assertion that desmoplastic mesothelioma is a variant of the sarcomatous type of mesothelioma. We have recently completed a necropsy study of 40 pleural mesotheliomas from Glasgow shipyard workers and have found desmoplastic areas to occur as frequently in otherwise pure epithelial types of tumour as in sarcomatous types. We would therefore emphasise most strongly that desmoplasia in itself gives no indication of the histological appearance of other areas of the mesothelioma in question.

We note that the assumptions of Dr Machin and colleagues are based on biopsy specimens alone, which we would hardly deem adequate sampling for the accurate subclassification of a tumour that is known for its histological heterogeneity.

Adams and Unni<sup>2</sup> are misrepresented in this short report of Dr Machin and colleagues on two occasions. Firstly, Adams and Unni did not suggest that the desmoplastic tumour was a variant of the sarcomatous type; indeed they noted epithelial elements in two of their five desmoplastic tumours and reported that desmoplastic components were present in all three of their mesotheliomas with a predominantly tubopapillary pattern. Secondly, although Adams and Unni did not indicate the proportion of their cases with bony metastases that were either desmoplastic or sarcomatous. they did note that five of their six patients with bony metastases showed either one pattern or the other, suggesting that metastasis to bone is not rare with this pattern of mesothelioma.

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- \*\*\*This letter was sent to the authors, who reply below.

SIR,—We thank Drs Thomas and Burnett for their comments on our paper. It remains our position that desmoplastic. mesothelioma is usually a variant. mesothelioma is usually a variant of sarcomatous mesothelioma. As shown in an earlier paper from the Canadian  $^{\omega}_{\Omega}$ Tumour Reference Centre,¹ however, a small proportion of = desmoplastic mesotheliomas have a biphasic or purely epithelial component. We agree with Drs Thomas and Burnett that desmoplastic areas are commonly found in all types of diffuse mesothelioma. What is distinctive about the desmoplastic mesothelioma, as emphasised in our paper, is  $\stackrel{\sim}{\rightarrow}$ that "much of the tumour is fibrous." It is the dominance of Q the fibrous component which makes differentiation from \_ fibrous pleurisy so difficult. The biopsy material in our patients was generous and clearly indicated the dominance of desmoplasia.

We did not imply that Adams and Unni (ref 2 above) had \$\oint{\Omega}\$ suggested that desmoplastic mesothelioma was a variant of one the sarcomatous type. We simply noted that these authors had found bony metastases in a small number of desmoplastic mesotheliomas and the closely related sarcomatous form. The fact that osseous metastases in their material were largely  $\overline{Q}$ confined (five of six cases) to sarcomatous and desmoplastic mesotheliomas could be taken as further evidence of a close biological relationship between the two histological types.

Experience at the Canadian Tumour Reference Centre is that bony metastases are very uncommon in mesothelioma. They were not observed in 27 cases of desmoplastic mesotheliomas previously reported from the centre. We also note that they are rare in material previously reported from Glasgow.2

The uniqueness of the two cases lay in the occurrence of multiple bony metastases in the absence of clinical evidence of metastases to the other sites.

WT ELLIOTT MCCAUGHEY Canadian Reference Centre Ottawa, Ontario T MACHIN ET MASHIYAMA St Mary Medical Center =: Long Beach, California 9 JAM HENDERSONN Ottawa General Hospital Ottawa, Ontario +

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