

*Drs Start, Cross, and Smith comment:*

We were most interested to read the letter from Dr Ruban *et al* and are receptive to suggestions for improving the efficiency of tissue fixation, but we have reservations regarding the injection of fixative into breast biopsy specimens.

The authors correctly refer to two potential hazards but we are more concerned by the potential effects on the subsequent histological interpretation of specimens treated in this way. The injection of even a small volume of fixative into excision biopsy specimens could produce tissue artefacts and irreversibly change the overall tissue morphology. Neoplastic lesions could be expanded by the fixative, leading to a false worsening prognostic index which is directly influenced by tumour diameter.<sup>1</sup> Alternatively, failure to inject the tumours would not prevent delayed fixation and the possible changes in tumour grade which could result from a reduction in the number of observable mitotic figures.<sup>2</sup> Fragments of tumour could be forced into vascular channels, simulating vascular invasion, or into breast ducts, simulating carcinoma in situ, and the distortion caused by injecting fixative into small localisation specimens containing peripheral lesions could complicate the assessment of adequacy of excision. The impact of a single 1 ml injection of 10% neutral buffered formalin into a solid 5 cm lump would be minimal (figure). The bolus of fixative would only penetrate 3-8 mm into the surrounding tissue in 24 hours,<sup>3</sup> and multiple injections would therefore be required for rapid and uniform fixation.

Although the authors report an improvement in tissue morphology, a more detailed appraisal of the effects of fixation injection is required before the method can be fully evaluated. An efficient specimen delivery service should allow the rapid assessment of specimens within routine laboratory hours and we would recommend that all breast specimens are described and sliced on receipt in the fresh state after the marking of appropriate resection margins.

- 1 Elston CW, Ellis IO. Pathological prognostic factors in breast cancer. I. The value of histological grade in breast cancer: experience from a large study with long-term follow up. *Histopathology* 1991;19:403-10.
- 2 Start RD, Flynn MS, Cross SS, Rogers K, Smith JHF. Is the grading of breast carcinomas affected by a delay in fixation? *Virchows Arch (Pathol Anat)* 1991;419:475-7.
- 3 Baker JR. *Principles of biological microtechnique*. London: Methuen, 1960:31-43.

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## BOOK REVIEWS

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**Interpretation of Protein and Isoenzyme Patterns in Body Fluids.** T Sun. (Pp 225; \$51.) Williams & Wilkins Ltd. 1991. ISBN 0-896420-202-9.

On my first perusal of this book I thought that it was just a repetition of similar books in this field. However, on settling down to review it a few weeks later I found myself wishing I had more time to spend studying it carefully.

The presentation appears simple, but in fact contains important selected information supported by carefully thought out tables, diagrams, and photographs. The first four chapters cover the clinical importance of plasma proteins, including the complement system and immunoglobulin abnormalities. The major part of the book is then devoted to the techniques of electrophoresis, immunoelectrophoresis, fixation and blotting, quantitation of heavy and light chains, lipoprotein analysis and isoenzymes. The valuable part is the discussion on the findings in disease.

I strongly recommend that this book be bought for the department library. Trainees—both scientific and medical—will find it not only informative but easily digestible.

BRENDA SLAVIN

**Surgical Pathology of the Mediastinum.** 2nd ed. AM Marchevsky, M Kaneko. (Pp 351; \$124.00.) Raven Press. 1992. ISBN 0-88167-818-X

There has been an increasing trend in the pathology literature towards writing texts based on the pathology of specific anatomical regions. This approach provides a ready reminder of the potential diagnoses at a given site, but there is a tendency towards brevity in the pathological descriptions. Although devoted to the mediastinum, the authors have deliberately, and understandably, excluded the heart and great vessels from their brief. One third of the text is devoted to the thymus with the remainder covering miscellaneous inflammatory conditions and cysts, neuroendocrine tumours, germ cell neoplasia, soft tissue tumours and lymphomas.

In the section on thymus it is regrettable that little coverage is given to Müller-Hermelinck's prognostically relevant classification of thymoma. This aside, the overall description of thymomas is good, although some of the low power figures are of poor quality.

The chapter on lymphoma is a little unsatisfactory. For example, the special problems of diagnosing Hodgkin's disease in the mediastinum are not addressed, and primary thymic disease is only briefly described in an earlier chapter. The coverage of sclerosing mediastial B cell lymphoma is equally unhelpful without consulting the references. The computed tomogram scan purported to be of such a case shows a posterior mediastinal mass.

By contrast, the chapter on mediastinal cysts contains careful descriptions which are well illustrated with clinical and pathological photographs. The other sections of the book steer a midway course but I doubt whether the soft tissue chapter will be used by anyone with a serious interest in the field.

Overall, however, the book performed rather better than I had anticipated. In places it does tend to lapse into a gazetteer of conditions spotted in the region, but this is offset by sections in which truly diagnostic

ically useful descriptions are given. This certainly provides a preferable alternative to the aging AFIP fascicle.

AJ NORTON

**Melanocytic Tumors of the Skin. Atlas of Tumor Pathology.** DE Elder, GF Murphy. (Pp 216; \$40.) Armed Forces Institute of Pathology. 1991. ISBN 0160-6344.

This is volume 2 in the (confusingly) renumbered AFIP fascicles on tumour pathology. This volume is devoted entirely to various melanocytic tumours and only those occurring in the skin are considered. The reason for pointing this out is that the closest rival is the recent volume in the "Biopsy Pathology" Series (Vol 17: *Biopsy pathology of Melanocytic disorders* by Mooi and Krausz £59.50) which covers a similar field, costs a similar price (allowing for postage, VAT etc), but contains sections on extracutaneous melanocytic lesions, and melanocytic cytology.

David Elder is a well known authority in the field of melanoma studies and all who have seen him in public debate with Bernard Ackerman on the subject of dysplastic naevi will know that he is a cogent, reasoning pathologist whose views are well researched and lucidly presented; exactly the same can be said of this book. The illustrations of histopathology are in black and white and are excellent, there are also some colour photographs of the gross pathology which are also uniformly good. The references are wide ranging; in the section on benign melanocytic tumours (which includes dysplastic naevi) there are 128 references about 10 of which come from non-American sources. I can find no references to AgNOR studies, although there are several in the literature, and I can find no references to Ackerman as first author on dysplastic naevi, although I know that he has written on the subject (with considerable scepticism). Several other papers sceptical of the importance of sporadic dysplastic naevi are also omitted (they are to be found in the relevant chapters in biopsy pathology of melanocytic disorders).

In spite of these criticisms this remains an extremely well produced book, well up to the high standards of the AFIP fascicle series, and will be a very useful bench book in a very difficult area.

D COTTON

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## NOTICE

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