

Book reviews

Collagenase in Normal and Pathological Connective Tissues. (Ed.) DAVID E. WOOLLEY and JOHN M. EVANSON. Pp. 292. £16.00. John Wiley: Chichester. 1980.

In 1978 a symposium was held in Manchester on the subject of collagenase, and the participants were invited to contribute to a monograph with the object of describing and evaluating progress in this field. The result is a satisfying account of what is known about collagenase as distinct from many published accounts of symposia, which are often tantalisingly inadequately documented and referenced. The editors are to be praised for fashioning a comprehensive text which is clear and reads well even to the non-expert.

Successive chapters provide a brief account of the substrate collagen, reviews of collagenase action release and regulation, and descriptions of the role of collagenase in a variety of tissues. A final chapter tabulates the literature references on vertebrate collagenases up to 1978. Of special interest to those concerned with the eye is an account by Michael Berman of collagenase and corneal ulceration. In conformity with findings in other tissues he reviews evidence that collagenase is formed by the corneal fibroblasts in response to cell-cell interaction with the overlying epithelium. Released as a zymogen or bound to an inhibitor, the enzyme can be activated by plasmin and other proteolytic systems. Corneal epithelium is able to secrete a plasminogen activator which will both promote collagenase activity on the part of the fibroblast-derived enzyme and, through complement, attract polymorphonuclear neutrophil leucocytes, which are also a source of collagenolytic activity. The role of collagenase inhibitors, such as α_2 -macroglobulin, in the cornea is also discussed, as is the role of medroxyprogesterone in controlling collagenase secretion.

This book has much to offer both clinicians and nonclinicians concerned to understand the nature of corneal ulceration and inflammation and, to a lesser extent, of scleritis. The standard of production is good, and there is a useful index.

ALEC GARNER

Computerized Tomography. Vol. 3. No. 4. (Ed.) MELVIN G. ALPER. Pp. 331. \$17.50. Pergamon Press: Oxford. 1979.

This volume of the journal, edited by Dr Melvin G. Alper, from Washington, is largely concerned with CT scanning in orbital diagnosis. It includes 5 papers on orbital scanning, and it is interesting that Lloyd (London) performs plain skull films and axial hypocyloidal tomography prior to CT scanning in the investigation of unilateral proptosis. Grove (Boston) advocates CT scanning in trauma both for the location of foreign bodies and the detection of fractures. Dubois *et al.*

(Pittsburgh) used their orbital slices to monitor needle position for aspiration biopsy of lesions in the orbit, and provide a good example of the biopsy of a malignant glioma of the optic nerve in a 65-year-old man. Finally Citrin (Washington) emphasises the importance of coronal scans in the diagnosis of orbital lesions.

Intracranial disorders affecting the visual pathways are discussed by Citrin and Alper (Washington), and they describe 14 cases with lesions involving the intracranial optic nerve, the chiasm, and the retrochiasmatal pathways.

This volume is well produced and provides interesting material for those concerned with orbital or neuro-ophthalmic diagnosis. However, the limitation of size (100 pages) precludes the treatment of the subject in any degree of depth.

M. D. SANDERS

Phacoemulsification and Aspiration of Cataracts. By JARED M. EMERY and JAMES H. LITTLE. Pp. 325. £29.50. C. V. Mosby: St. Louis, Missouri. 1979.

This very beautifully produced volume is part elaborate apologia and part technical manual for a subject which continues to be controversial in ophthalmic surgery. The book is divided into 2 principal sections. The first deals with aspects of the so-called Kelman phacoemulsification procedure, and the second, a short section at the back, is confined to a separate instrument, the phaco-fragmentor.

The first section is divided into parts in the usual manner for dealing with a surgical topic—principles, instrumentation, indications, techniques, complications, and results. The text is a joint product not only of the 2 main authors but also of a considerable array of well known exponents of this form of surgery, each of whom has been invited to explore his views, results, and various modifications of procedure. The result is rather repetitive, both in the text and in the copious illustrations.

As so often happens, the ardent exponents of a new idea find it difficult to be objective. For instance, a stout claim is made that there is no evidence to suggest that ultrasonic vibrations can harm the corneal endothelial cells, whereas readers will be well aware that such evidence has been well documented in the ophthalmic literature. The authors have made comparisons of their technique with standard intracapsular extraction only and fail to recognise that in recent years excellent techniques have been developed for elective extracapsular extraction which do not require the expensive and sophisticated equipment this book has been designed to promote. This is a pity, as the failure is glaring and important. All the results quoted are without controls and are therefore impossible to evaluate as a comparison with alternative techniques.

The second section on phaco-fragmentation has been written by the inventor, Girard. The claims for this instrument are indeed impressive, though no figures are quoted in the results obtained over a period of several years. One can only surmise why so apparently valuable a tool has failed to find wider favour.

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Collagenase in Normal and Pathological Connective Tissues

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