

Despite Rushton's poor response with the orally administered β_2 blocker ICI 118,551, β_2 specific blockers used topically on the eye have been reported to lower intraocular pressure potentially in animal eyes.⁶ Furthermore we are not at all surprised that he found ICI 118,551 less potent than (\pm) propranolol. We have found that ICI 118,551 binds 10 times less potently to receptors in the ciliary processes than (\pm) propranolol (Trope GE, Clark B, paper in preparation). (Kd for ICI 118,551 = 5.5×10^{-8} , Kd for (\pm) propranolol 7.9×10^{-9} .) Despite this finding we still feel that a trial of Topical ICI 118,551 on patients with glaucoma is probably indicated in view of this drugs β_2 specific blocking effects and its cardioprotective action.⁷

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Angioid streaks in thalassaemia major

SIR, I read with interest the paper on angioid streaks in a case of thalassaemia major.¹ I thought it appropriate to call to your attention a paper entitled 'Laser treatment of choroidal neovascular membranes in angioid streaks.'²

Case 1 describes a 50-year-old man with a history of thalassaemia intermedia and haemochromatosis (as a result of his anaemia). Fundus examination revealed peripapillary angioid streaks in both eyes with dense disciform macular scarring in the left.

We noted in the case cited in our paper that haemochromatosis can occasionally accompany thalassaemia intermedia. Haemochromatosis also results in the clinical manifestation of iron overload in the tissues. The 2 haemolytic disorders combined could cause iron deposition on Bruch's membrane and the resultant angioid streaks. Yet neither thalassaemia intermedia nor haemochromatosis effects a primary disturbance in the elastic tissue of the body. The brittle lamina basalis in this case may have occurred because of iron deposition, and thus Bruch's

membrane is probably quite similar to that in a patient with sickle cell disease.

We were interested to find that you also noted the similarity between the 2. We mentioned that the mechanism of the breaks in Bruch's membrane in the eyes of patients with sickle cell disease is not primary elastic tissue degeneration either, since no elastic tissue defect occurs with this disease. It has been conjectured that the haemolysis of sickled red cells leads to iron deposition on Bruch's membrane, which would lead to the brittleness of the lamina basalis.

We were pleased to find that your paper also supports the iron deposition theory with reference to development of angioid streaks. Congratulations on an excellent paper.

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Book reviews

Pathobiology of Ocular Disease: A Dynamic Approach. Eds. ALEC GARNER and GORDON K. KLINTWORTH. Pp. 1760. SFr. 650.00. (In two parts). Marcel Dekker: New York. 1982.

The aim of the work, as explained in the editors' preface, is to bring a new, dynamic approach to the study of ophthalmic pathology, concentrating on disease mechanisms rather than on descriptive pathology, which is stressed in other books on the subject.

The work is in 2 volumes totalling 55 chapters, written by a host of experts, who are recognised authorities in the field of their contributions, including the 2 editors, who have taken an active part in the writing.

The size of the work allows only a brief survey here of the contents. The first chapter, appropriately, is on ultrastructure, and is in a subsection headed 'Basic principles'; it is followed by a discussion on inflammation in general, incorporating recent and important advances. Infection of the eye is dealt with in 8 contributions, each one discussing a particular class of agents such as micro-organisms, viruses, etc. The techniques and methods described in this section often belong to disciplines other than histopathology. Principles of laboratory investigations in ocular infection are discussed and practical details are given, such as the selection of culture media. All aspects of trauma are covered in an extensive chapter, and another substantial contribution deals with development, normal and abnormal, featuring valuable tabulations of various defects. A section on glaucoma includes experts' accounts of anterior and posterior segment changes in this condition and a discussion

of the metabolic background to glaucoma. Tumours are next fully considered, including a discussion on the immunology of neoplasms and the value of immuno-diagnostic methods in appropriate cases.

In the second volume the most extensive section is one on storage diseases and metabolic errors; vitamin disorders, drugs, and toxins are also included. Previously known by eponyms, often multiple, many of these conditions may now have their features tabulated, showing the identity of the abnormal metabolite (which can often be demonstrated on electron microscopy), the nature of the enzyme defect, and also relevant clinical and genetic information. A further section relates to dystrophic conditions which may occur in the absence of any recognisable metabolic disturbance. Other contributions are concerned with degenerative and related conditions, cataracts and retinal and choroidal conditions in particular. An account of ocular involvement in disorders of the vascular, nervous, and muscular systems is followed by an epilogue by both editors in which recent work is considered in a variety of disorders.

The editors' aim of emphasising disease mechanisms seems to have been achieved within the limits of our knowledge. The aetiology of many conditions being still unknown, classification must depend on features other than causative factors. A beginner might have difficulty in following up the many page references in the alphabetical index, on broad concepts such as 'uveitis' or 'conjunctivitis', the information being present but not concentrated in one chapter or section; the more experienced reader should have no problem in finding his way.

The presentation of these 2 volumes is excellent, and the style is clear and attractive. The clinical and macroscopic illustrations, the diagrams, tables, flowcharts and pathways, and the light and electron microscopic pictures are of the highest order. The references to the literature are numerous, recent, and accurate, where they have been checked.

The work combines a full account of histopathological and ultrastructural changes in eye disease with other essential laboratory disciplines and techniques not readily obtainable in other works. These volumes should be made available to all those within an ophthalmic reference centre who are concerned with clinicopathological correlation, diagnosis, and teaching, and to all readers wanting to understand disease mechanisms more clearly.

The fruit of careful planning and of transatlantic co-operation, this work will surely be hailed as a most important addition to the literature of ophthalmology. The editors and all the contributors may well be proud of this achievement.

D. R. BARRY

Paediatric Ophthalmology. Ed. J. FRANÇOIS and M. MAIONE. Pp. 423. £19.00. John Wiley: Chichester. 1982.

This book is really a collection of over 70 papers by about 200 authors, most of whom are from continental Europe. Many of the papers are individual or limited case reports, some of which are instructive, and many of the papers are well illustrated. Although some papers are rather quaint in

their content and presentation, some are excellent and are useful sources of references. In particular, papers by van Balen and Hagemans on amblyopia, by Fielder *et al.* on oxalosis, and by Harley and Spaeth on child abuse are outstanding.

The editors are to be congratulated on putting together a diverse group of papers into some semblance of logical order, but it is a shame that the index is only one-fifth the length of the table of contributors and contents.

DAVID TAYLOR

Automation und neuere Technologie in der Ophthalmologie. By OTTO-ERICH LUND and KLAUS RIEDEL. Pp. 201. DM 55. Ferdinand Enke Verlag: Stuttgart. 1982.

The age of computers and microtechnology has produced a number of automated techniques and instruments that are having an increasing application in ophthalmology. Some of these, such as computerised tomography and ultrasound, have already established their place in ophthalmic diagnosis. Others, such as automated refracting machines and visual field analysers, are emerging into clinical practice. And yet others, such as computerised image analysis of the fundus, may be the clinical techniques of the future.

The fundamental principles and application of these instruments are described in a series of articles by different authors in this well-illustrated handbook. The text is mainly in German with English summaries, and the contributions derive from a meeting held in Munich in 1980. In a field of ophthalmology in which techniques are changing so rapidly this volume serves as a useful reference book and introduction, even though many of these procedures are likely to become obsolete in a few years' time.

T. J. FFYTCHÉ

Field Guide to the Detection and Control of Xerophthalmia. 2nd edn. By A. SOMMER. Pp. 58. Sw.fr.10. WHO: Geneva. 1982

The first edition of this WHO Field Guide was published in 1978 and was designed to provide a simple, practical guide for clinicians, nurses, and public health officials. Xerophthalmia has been estimated to affect at least 5 million children in Asia every year and cause blindness in about 250 thousand of them. Dr Sommer, who is an acknowledged expert in the field, has incorporated many new observations on pathogenesis, epidemiology and treatment of xerophthalmia in this new edition. He has managed to compress the story of this major and preventable form of blindness into a mere 57 pages. There are sections on vitamin A metabolism and on the clinical classification and diagnosis. The 1982 revised classification of the features of xerophthalmia is tabulated, and its use, for instance with a clinic-based case reporting form, is indicated in an appendix. A number of other useful appendices are provided.

An introductory section on the epidemiology of xerophthalmia discusses case finding, seasonal effects on nutrition