

ULTRASOUND OF THE EYE AND ORBIT

Sandra Frazier Byrne and Ronald L. Green.
St Louis: Mosby, 1992. 505 pp. \$195.00
ISBN 0-8016-1968-8.

In the preface to this text the authors' stated goal is to present a comprehensive overview of ultrasound as it applies to the eye and orbit. This is the first text of this sort to appear in the last decade and that alone ensures it a place as an important reference for ocular ultrasound.

The authors are the heads of the ophthalmic ultrasound units at the Bascom Palmer and Doheny Eye Institutes and have been active in the development and teaching of ophthalmic ultrasound techniques for the last fifteen years.

As both authors have been advocates of the standardised echography techniques this gives the text a more comprehensive coverage of ophthalmic diagnostic A and B scan ultrasonography than previous texts.

Chapters 2 and 7 are excellent descriptions of examination techniques and the coverage of the orbit in the second half of the book is the most extensive coverage of this subject to date. Chapter 5 gives an exhaustive evaluation of all forms of ocular melanoma that is again unparalleled in previous texts.

As a comprehensive overview of ophthalmic ultrasound a more thorough coverage of the history and development of ophthalmic ultrasound may have been expected. This could include more detailed explanation of the physics and instrumentation, especially recent research in differentiation of tissue type.

Chapter 3 provides an adequate presentation of vitreoretinal disease. Compared with the emphasis on the other areas in the text, vitreoretinal disease, as one of the most difficult

diagnostic areas of ophthalmic ultrasound, could be considered to warrant a more extensive discussion.

The quality of the ultrasound illustrations is generally good, however the quality of fundus photographs prevent a good illustration of the various lesions' clinical appearance. Further illustration of the ultrasound findings using explanatory diagram may have improved the text for the ultrasound novice trying to understand the components of the A and B scan photographs.

Overall this text is an excellent overview of ophthalmic ultrasonography that provides an interesting reference for the advanced ultrasonographer as well as a good basic introduction for the novice.

Chris Prior.

ATLAS OF CLINICAL OPHTHALMOLOGY - 2nd Edition

David J Spalton, Roger A Hitchings, Paul A Hunter
Wolfe Publishing London 1994 \$244.00
ISBN 0-397-44632-2

The purpose of this atlas is to provide an introduction to clinical ophthalmology with detailed color illustrations a key part of the format. It has contributions from many ophthalmologists and a neurophysiologist, all from hospitals around the UK. As the atlas is intended primarily for students of ophthalmology the text, although concise, assumes a thorough knowledge of medical terminology and unfortunately does not provide a glossary for the less knowledgeable.

The book begins with a section on methods of

ocular examination. This chapter includes the theory and the use of both common clinical tests and the latest technology including electrodiagnostic testing, medical imaging, contrast sensitivity, computerized perimetry and keratometry. Anatomical groupings form the basis of most of the following chapters. Each section of the eye is included as well as the orbit, eyelids and lacrimal system. The retina has 4 chapters alone. In addition to this there are chapters on glaucoma, intraocular inflammation, strabismus, neuro-ophthalmology, infections of the outer eye and allergic eye disease.

Each subject area is covered by information on normal physiology as well as a large selection of disorders. There is a moderate amount of text but the illustrations are of primary importance. These include photographs of fundi, histology, electron and light micrographs, fluorescein angiography, composite paintings and graphs. Each photograph is accompanied by an extremely useful simplified diagram showing the relevant pathology more clearly.

The comprehensive atlas is an interesting textbook which covers most areas of ophthalmology, many in surprising detail. The illustrations are a reminder of the huge number of unpleasant eye diseases it is possible to suffer from and to see in clinical practice.

Anita Egan

OCULAR ANATOMY AND PHYSIOLOGY.

Saude, T. 1993.

Blackwell Scientific Publications Oxford. \$275
ISBN 0-632-03599-4

This is a basic reference book with the emphasis on ocular anatomy. The text has been translated from Norwegian and is presented in an easy to follow readable style. The book presents a regional approach to the ocular anatomy, that is each chapter provides information relating to a region of the globe including structure, func-

tion(s), blood and nerve supply. The exceptions to this approach are the two chapters which describe blood and nerve supply to the globe in greater detail.

The following topics are included as chapters:

The gross anatomy of the orbit including osteology and the nasal sinuses. The outer coats of the eye in which the cellular structure of the cornea and tissue structure of the sclera are presented. The middle coat of the eye in which the tissue structure of the choroid, ciliary body and iris are presented and pupil responses to light are discussed. The internal ocular media in which the lens, aqueous and vitreous are discussed at a cellular and biochemical level. The internal media also includes discussion of intra ocular pressure and the process of accommodation. The chapter on the retina includes cellular anatomy of the retina and a discussion of the visual process. The visual paths provides an overview of the visual pathway from retina to visual cortex. Structures external to the eye include surface anatomy of the surrounding features and the anatomy of the lids at the tissue level. The lacrimal apparatus provides an overview of the structures involved in tear production and drainage with detailed discussion of the tear film and the mechanism of blinking. The extrinsic ocular muscles includes discussion of the extraocular muscles at the cellular level with an overview of ocular movements and clinical testing. The chapter relating to orbital blood vessels provides a brief overview of the branches of the ophthalmic artery and venous drainage of the globe. The chapter on nerve supply to the orbit presents each of the cranial nerves related to the orbit or structures within the orbit and traces the nerve pathway from nucleus to orbit and/or globe. Ocular embryology presents a general introduction to appropriate terminology and a brief introduction to development within the globe.

Generally the chapters follow a similar format beginning with an overview of the region to be discussed. This overview is written in an easy to read style and provides the context for the more detailed material to follow.

Anatomical descriptions vary in depth with greater detail supplied on the cornea, retina, extraocular muscles and the extended chapters on the orbital blood and nerve supply. The text includes numerous diagrams which are clear and easy to follow. The diagrams are predominantly black and white sketches with colour used to highlight specific structures, four microphotographs are also included. There are eight colour photographs of external features of the globe, fundus and posterior surface of the anterior uveal tract.

Unlike other contemporary texts this book does not contain applied anatomy in the form of case studies or clinical examples. The chapters relating to the internal ocular media and extraocular muscles include descriptions of appropriate clinical tests for the measurement of intraocular pressure and ocular movements respectively. This is a text which describes structure and function leaving the reader to interpret this information clinically.

The title indicates that this book is primarily an anatomy text with secondary reference to physiology which is a reasonable summary of the content. Only physiology which is of significance in the clinical setting is described including corneal metabolism, retinal metabolism, aqueous production, tear production and a brief description of extraocular muscle metabolism.

In summary Saude's book is written in a readable style using technical language. Where a structure is named after an individual Saude tends to use the anatomical term and include the alternative name, this is useful in a clinical reference as the alternative name is often the one in common clinical use. Ocular anatomy and physiology is a text book and not intended for the lay reader. It would be a useful reference for the practicing clinician wishing to review an area of anatomy to provide background for clinical decision making. Students will find this a good basic text to be used in conjunction with more detailed specialist references.

Kerry Fitzmaurice.

MANAGEMENT OF DIFFICULT GLAUCOMA

Higginbotham, E.J. & Lee, D.A. (Editors)
Blackwell Scientific Publications Boston 1994
\$275.00 ISBN 0-86542-257-5

Management of Difficult Glaucoma outlines the current advances in the research of glaucoma epidemiology and risk factors. It provides information on the basic principles of intra-ocular pressure measurement techniques, optic nerve head evaluation and visual field evaluation techniques. Recent advances in psychophysiological testing, including electrodiagnosis are outlined, as are the basic principles in medical therapy.

Treatment approaches to ocular hypertension, low-tension glaucoma and angle closure are discussed, as well as that of the more complicated forms of glaucoma. Management of factors which may complicate glaucoma, or conditions in which glaucoma may cause complications are also discussed. Each management approach is accompanied by easy-to-read flow diagrams or 'decision trees'.

The latter half of the book is devoted to surgical intervention, laser and filtration techniques. The discussions in these sections are accompanied by clear, step-by-step diagrams.

Overall this book provides a good, easy to read, general reference text on all forms of glaucoma, their diagnosis and management.

Alice Rota-Bartelink.

OCULAR DIFFERENTIAL DIAGNOSIS.

Frederick Hampton Roy.
Lea and Febiger, Philadelphia, 1993. Fifth Edition.
ISBN 0-8121-1594-5

This text is an extensive book of lists, and is designed to facilitate ocular differential diagnosis where each ocular symptom and sign is indexed under the ocular structure affected. All

possible associations of the sign or symptom are subsequently listed, allowing the clinician to then consider the further tests required in order to differentially diagnose the condition. Cross referencing of signs and symptoms is easily facilitated.

In the fifth edition of this text the author has also developed a new method of diagnostic decision tables. These tables which include history, physical signs and laboratory tests allow progression from differential to specific diagnosis for several of the ocular conditions.

This text will serve as an exhaustive reference to those clinicians requiring comprehensive lists detailing the relationship of ocular signs and symptoms to specific ophthalmic and systemic conditions and syndromes.

C. Devereux

last chapter on vision therapy again includes a broad overview but is not specific. The book is recommended with reservation to those already possessing a basic knowledge of orthoptics. The volume is well written and shows the authors attention to detail, particularly in the standard of line drawings. The particular emphasis would be of interest to 3rd and 4th year orthoptic students.

J. D. Green

CLINICAL MANAGEMENT OF STRABISMUS.

E Caloroso and W Rouse.
Butterworth Heinemann.

As its own preface states, the book is written by an optometrist for optometrists and therefore excludes much of the vital role of the orthoptist in the diagnosis and treatment of these conditions. Chapter one, the model of the visual pathway, introduces the concept of good visual acuity in hand with binocular single vision, which incorporates a very simple overview of motor and sensory perception. The chapter on diagnostic evaluation covers history taking, the practice of refraction through to the cover test and 4 Δ prism test all of which are accompanied by clear diagrams. The next three chapters on conservative and surgical therapy are somewhat confusing as there is no classification of strabismus and concomitant and incomitant strabismus are combined, whereas the chapter on strabismus management strategy is far clearer. The topics of suppression, amblyopia and ARC are not related to specific conditions and the lack of any modern clinical input is apparent. The