

Book reviews

Clinical Light Damage to the Eye. Edited by DAVID MILLER. Pp. 225. DM. 178.00. Springer-Verlag: Berlin. 1987.

This is a book I would love to say I enjoyed reading—but I did not. Its problems start with the title, which conveyed to me the impression that I was going to discover within its covers the eye damaging potential of exposure to various types of clinical instruments incurred during examinations, operations, or therapeutic procedures. This, however, is not the case, as the book is really a pastiche of subjects vaguely related to light and its potentially harmful effects, written by a number of authors of varying style, interest, and expertise. Its lack of objectivity and or logic is further highlighted by a glance at the titles of its four major subdivisions. These are: the nature of light and light damage to biological tissues; light damage to the eye; protecting the eye from light damage; and finally, and somewhat obscurely, an overview of light damage to the eye. This last section, though one of the best, almost seems an afterthought occasioned by a guest author responding to a late invitation. While I am sure this is not the case, it is the impression gained by reading the title and the volume of material repeated in this section that appears elsewhere in the book.

I certainly feel that this book addresses a subject that needs critical attention by clinical audiences in view of the current trends in using both specialised and intense sources of optical radiation for diagnosis and therapy throughout ophthalmology. Unfortunately I think that these authors have not fulfilled their self appointed task. In part I suspect that this is because the pressures of modern publishing have not allowed them to view each other's contributions and, on reflection, delete repetitions and attend to group omissions. Multiauthored texts of this type need far firmer editing than this volume has received.

The initial section on light is an excellent idea and at its best when discussing philosophical aspects of optical radiation and its interactions with various biotic and inanimate systems within the biosphere. It is least helpful, however, when it should be most practical, that is, in trying to explain to non-physicists the problems of measuring light sources and defining the dose delivered to the biological target. Further, it should be far more comprehensive in explaining the confusion that exists as a result of experts in this field using two systems of measurement—radiometric and photometric. This is a perennial area of misunderstanding and confusion, and although some attempt is made to address the problem it lacks comprehensibility, and most of all it lacks explicit diagrams.

A systematic approach is also lacking in the treatment of the interactions of light and the eye. I think it would have been helpful to review briefly the concepts of transmission, scatter, and absorption of radiation and from this basis discuss the spectrum of incident radiation presently at each of the media or tissues within the globe. Having related these data the authors would have provided helpful orientation by giving some indication of action spectra of induced effects due to endogenous pigments. Finally I would like to

have seen an overview of the mechanisms by which light may damage tissues and in particular a clear recognition of the distinctions between photothermal and photochemical damage. In contrast the synergistic interactions between these two mechanisms in relation to damage induced by high irradiance clinical sources such as operating microscopes would also have been helpful. This topic is not emphasised in the text, and, although the wavelength dependence of photochemical damage is indicated, it is emphasised in the ultraviolet, with respect to the lens, but not in the blue region of the visible spectrum, where we are now aware of the well characterised 'blue light hazard' for the retina.

Instead of a panoramic approach the book jumps directly from light to tissues, and for some obscure reason leaps straight to the angle. As an informed reader I commend the authors for including it as a sector of the globe usually ignored in texts on light induced damage, but why before the cornea, lens, or retina? Surely in these latter structures the basic principle of photon-tissue interactions are far better understood and more easily explained than in the trabecular meshwork.

The section on retina and its aging process is a highlight but again is marred, this time by the poor quality of the illustrations. Throughout the book the colour plates are not of high quality and some are very poor indeed.

In summary this book was a disappointment to me, but I am sure it will grace many book shelves, as it is a useful source of reference material.

JOHN MARSHALL

Manual of Cataract Surgery. By ROBERT M SINSKEY and Jay V PATEL. Pp. 88. £24.95. Churchill Livingstone: Edinburgh. 1987.

This is one of a series of manuals in ophthalmology produced by Churchill Livingstone and the principal author, Robert Sinskey, is an internationally renowned cataract surgeon. The first four of his 12 chapters deal with general considerations of anaesthesia, instrumentation, and preoperative preparation. The last chapter is concerned with postoperative care, and the intervening seven chapters deal with the various aspects of the surgery itself. Separate chapters are devoted to incisions, anterior capsulotomy, planned extracapsular extraction, posterior chamber phacoemulsification, the insertion of the intraocular lens, prevention and management of complications, and closure of the wound. The text of each chapter is divided into short, lucid sections, and the layout with plenty of headings of bold typeface and many uncluttered line drawings makes the manual easy to use.

Inevitably with descriptions of precise surgical techniques any reviewer is unable to agree with everything that is described, but the manual serves the purpose of giving a clear account of how to manage a cataract by extracapsular means in a way which should keep a beginner out of serious difficulties. Sinskey is most renowned for phacoemulsification, and it is therefore not surprising to find that of this short book the largest chapter deals with posterior chamber phacoemulsification. The opening sentence of the chapter describes the technique as 'the method of choice for cataract extraction'. Clearly that comment continues to be arguable.