

MAILBOX

Prevention of visual field defects after macular hole surgery

EDITOR.—We read with interest the article by Culliance and Cleary¹ on the method of prevention of visual field defects after macular hole surgery. In their series, one group of 82 eyes received conventional pars plana vitrectomy surgery with mechanical induction of posterior vitreous detachment (PVD) around the optic disc followed by complete posterior cortical vitreous removal. Twenty two per cent of these eyes had certain postoperative visual field defects. There again, another group of 20 eyes received pars plana vitrectomy with peeling of the posterior hyaloid confined to the macular area with sparing of the peripapillary region. None of them had any postoperative visual field loss. The authors proposed that vitreopapillary traction around the optic nerve head during the mechanical separation of the posterior hyaloid is responsible for the formation of the observed postoperative inferotemporal visual field defects. The microcirculation at the optic nerve head may be damaged during the induction of PVD as the posterior cortical vitreous is most adherent at the supero-nasal aspect of the optic disc.² However, we are concerned about the standardisation of the method of removing the remaining peripheral cortical vitreous in these two groups of eyes, as peripheral vitreous may act as a protective cushion from dehydration during fluid/air exchange. Yan *et al*³ had shown that no significant correlation was found between iatrogenic detachment of vitreous cortex and postoperative visual field defect, but all patients who had postoperative visual field defect had undergone fluid/air exchange in their series. Similarly, Ohji *et al*⁴ had demonstrated that using humidified air for fluid-air exchange in macular hole surgery could prevent postoperative visual field defect. Others had demonstrated that the visual field defect was dependent upon the site of the air infusion port.^{5,6} All these reports suggest that air dehydration of the peripheral retina may be a very important factor in causing postoperative visual field defect after macular hole surgery.

In conclusion, we congratulate Culliance and Cleary¹ on their study describing the prevention of visual field defects after macular hole surgery by limited posterior hyaloid peeling. However, the exact mechanism behind this success needs further evaluation.

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- 1 Culliance AB, Cleary PE. Prevention of visual field defects after macular hole surgery. *Br J Ophthalmol* 2000;84:372-7.
- 2 Katz B, Hoyt WF. Intrapapillary and peripapillary hemorrhage in young patients with incomplete posterior vitreous detachment. Signs of vitreopapillary traction. *Ophthalmology* 1995;102:349-54.
- 3 Yan H, Dhurjon L, Chow DR, *et al*. Visual field defect after pars plana vitrectomy. *Ophthalmology* 1998;105:1612-16.
- 4 Ohji M, Nao-IN, Saito Y, *et al*. Prevention of visual field defect after macular hole surgery by passing air used for fluid-air exchange through water. *Am J Ophthalmol* 1999;127:62.
- 5 Takenaka H, Maeno T, Mano T, *et al*. Causes of visual field defects after vitrectomy. *Nippon Ganka Gakkai Zasshi* 1999;103:399-403.
- 6 Welcj JC. Dehydration injury as a possible cause of visual field defect after pars plana vitrectomy for macular hole. *Am J Ophthalmol* 1997;124:698-9.

Changing thresholds for cataract surgery

EDITOR.—We congratulate Hugh Taylor on his editorial¹ in which he discusses the amount of cataract surgery that needs to be done. We were particularly interested by his calculations drawing attention to the effect of changing the visual threshold at which the decision to undertake cataract surgery is made.

We have reviewed a series of eight audits of cataract surgery to determine the visual acuities at which patients were put on the waiting list for cataract extraction. The audits were designed to show surgical outcomes but they also list the visions at the point when the decision to operate was made. They include all patients during short periods between 1982 when intracapsular extraction without lens insertion was the norm and the first 6 months of 2000 when practically all cases were phacoemulsification through a clear corneal incision with a foldable lens. They are all based on the throughput of a single firm of a teaching hospital (Table 1).

These results are heartening in that they show that the pool of dense cataracts resulting in visions of 6/60 or worse has decreased (from 77% in 1982 to 19% in 2000). They confirm that as surgical techniques have improved the demand for surgery at an early stage has dramatically increased. In the 1982 audit only 2.6% of cases saw 6/12 or better whereas by 2000 this figure had risen to 47.7%.

We accept that visual acuity is far from being a comprehensive measure of visual disability but none the less it is useful as an indicator of trends. The trend is clearly

towards earlier cataract surgery and it is likely to be maintained resulting in increasing surgical volumes. The answer to Taylor's question, "how much surgery do we have to do?" is more and still more. The problem then becomes partly political in that governments decide on maximum waiting times for surgery with the effect that it becomes difficult to prioritise those patients with a serious degree of cataract over those who are simply suffering inconvenience.

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- 1 Taylor HR. Cataract; how much surgery do we have to do? *Br J Ophthalmol* 2000;84:1-2.

BOOK REVIEWS

Manual of Cataract Surgery. Eds Gavin G Bahadur, Robert M Sinskey. Pp 105: £26.74. Oxford: Butterworth-Heinemann, 2000. ISBN 0-7506-7082-7

This book provides an excellent basic guide of modern cataract surgery for the ophthalmologist in training. It considers management of the patient starting with his first visit to the ophthalmologist. It stresses the importance of setting realistic goals in the context of the lifestyle of the patient. It describes pre-assessment and biometry and mentions the available lens formulas. It does not go into detailed discussion of phacoemulsification systems. With the aid of clear diagrams it describes the surgery step by step. In these diagrams the instruments are not always at the same scale as the eye. Inevitably it shows an American slant on procedures and techniques. Local anaesthesia intravenous sedation is detailed, whereas there are only brief notes on general anaesthesia and no mention of positive pressure ventilation to help control intraocular pressure. The use of a blunt sub-Tenon cannula for placement of local anaesthetic is not mentioned. Intracameral vancomycin is not used routinely in the UK whereas 5% aqueous povidone-iodine is instilled into the conjunctival sac 5 minutes before surgery commences. As in most textbooks a few sections may seem a little dated. The use of commercially available capsular dyes probably makes the can opener capsulotomy obsolete even with the white cataract. Brief notes on paediatric cases, uveitis, and glaucoma add to the scope of the book.

W H CHURCH

Manual of Cutaneous Laser Techniques. By Tina S Alster. Pp 259: £80. Baltimore: Lippincott Williams and Wilkins, 1999. ISBN 0-7817-1960-7.

I was very impressed with this small and concise textbook which benefits from having a single author. The publishers have produced

Table 1 Visual acuity at listing for cataract extraction

Audit date	No of cases in audit	Type of surgery	Percentage of patients with a given visual acuity when decision to operate was taken		
			6/60 or worse	6/18 to 6/60	6/12 or better
1982	39	ICCE and no lens	76.9	20.5	2.6
1984	68	ECCE and IOL	70.6	25.0	4.4
1988	56	ECCE and PC IOL	67.9	32.1	0.0
1989	29	ECCE and PC IOL	62.1	34.5	3.4
1992	23	ECCE and PC IOL	21.7	69.6	8.7
1998	56	Phaco and IOL	16.1	44.6	39.3
1999	85	Phaco and IOL	14.1	54.1	31.8
2000	41	Phaco and IOL	19.0	33.3	47.7

a handy-sized manual, and the author has produced a well written didactic review of the application of all the current practical lasers available on the open market. With great efficiency their strengths and weaknesses are discussed in some detail. There is a definite impression that this author has used most of the equipment, or has at least been able to have an appraisal from other experts. The attention to practical detail is impressive not only in terms of technique but in preparation of the patient and the post-treatment regimen. There are specific protocols for laser use with check lists of practical advice which include materials for local anaesthesia and monitoring equipment for the patient while undergoing treatment. Examples of consent forms may appear repetitive, but underline the differences between the different types of lasers. A very useful "treatment log" encourages consistency of data collection.

I felt that the preoperative and postoperative illustrations were economical and were presented in a concise and interesting manner. Many of the sections displayed evidence of less than perfect results that would improve with time. Therefore, realistic appraisal of techniques and equipment is possible with this form of presentation.

Only in one area did I encounter a minor error; on page 155, there appeared to be a singular difficulty with terminology. The author has apparently been confused by the terms, blepharoplasty, blepharoptosis, and brow ptosis. They are not interchangeable. Otherwise, I found the clinical comments valid and the text is well referenced.

It is a book that inspires confidence in the reader. Although not many people will have experience of all the laser systems, the detailed accounts of these inspires a certain level of trust should a practitioner consider expanding his range.

EWAN G KEMP

The Transorbital Intracranial Penetrating Injury. By Martin Th A van Duinen. Pp 176; £58. Dordrecht: Kluwer Academic Publishers, 1999. ISBN 0-7923-5915-1.

Many of us, although not quite there yet, dream of retirement and specifically what we will do with all the time. Doctor van Duinen came with up with an interesting solution—to review a relatively rare condition of relevance to neurosurgeons but also of interest to ophthalmologists. The topic he selected was that of the transorbital intracranial penetrating injury (TIPI). He reviewed all the cases in the literature including two dissertations and came up with 347 cases.

The rarity of the condition is supported by the author conceding that in his 35 years of clinical practice as a neurosurgeon, he did not see a single case. Interest was stimulated by an intriguing press report of an accident or attempted murder in which the necropsy revealed an intracranially positioned ballpoint pen, the pen having entered through the orbit. (For "attempted" read "suspected" and this highlights one of the problems with the text.) An attempt is made to divide the monograph into chapters. Credulity is frequently stretched—for example, in the chapter on the "History of the condition", it is given that David slew Goliath with a stone that penetrated the brain stem having passed through the orbit. Henry II of France sustained a similar injury while jousting. The various classic

causes of the injury are umbrellas, pencils, knives, and chopsticks. There are other collectors' items like a kangaroo tooth and a needle-fish. Most have in common a sharp tip with a fairly thin piece thereafter. Certain points recur; that this is an easy injury to miss even with appropriate imaging; the history is not uncommonly unreliable; fragments of wood entering intracranially often have a bad prognosis. Other chapters deal with antibiotic therapy, complications, and the role of imaging.

This is a flawed book. It is extraordinary that a publisher allowed it to slip through what must be a very wide meshed net. The translation does not help. While the general text is acceptable, the more complex medical matters are in many instances rendered incomprehensible—for example, "acute blindness after orbital penetration has an unfavourable prognosis for vision". There is a lack of uniformity throughout the text in the style of presentation, the photographs, and indeed the topic covered; at various points transoral and transnasal injuries feature in the text. Ultimately this leads to confusion.

Unfortunately, the main conclusion is that the pursuit of academia in retirement is best avoided.

PETER M KYLE

Bascom Palmer Eye Institute Atlas of Ophthalmology. Ed Richard K Parrish II. Pp 500; £150. Oxford: Butterworth-Heinemann, 1999. ISBN 0-7506-7075-4.

One of the main aims of the junior ophthalmologist in training is to purchase a single textbook which will provide them with stimulating reading and the armamentarium to pass the dreaded postgraduate examination. Most of us have embarked on this journey full of hope that there must be someone, somewhere, who knows exactly what we need from a textbook in order to progress effortlessly through ophthalmology training.

This journey has proved almost invariably fruitless, as generally excellent books have failed to meet our requirements in one or two important areas.

Richard Parrish II has edited this textbook with an authorship that reads like a who's who of international ophthalmology. The text is divided up into fairly standard chapters covering most aspects of general ophthalmology. I found the first section on diagnostic examination and testing to be both imaginative and informative. Just the right amount of information is given on subjects such as electrophysiology, ultrasound, and corneal topography. Newer techniques such as optical coherence tomography and scanning laser technology are also discussed. The main body of the text devotes a large section to anterior segment disease and consequently the space devoted to other areas is limited. There is an excellent discussion of cataract surgery and of the different types of lens implant. The text is well referenced and important papers of the past few years are discussed at length. The section on intraocular inflammation is a bit limited and there is no significant space given to therapies involved in the management of these patients. I thought a chapter on the indications and limitations of systemic immunosuppression may have added more balance to this section.

As an atlas this book excels with beautiful illustrations and a well laid out presentation. It

is very difficult to find any fault with what will surely become a classic ophthalmic reference in time. Is this the single textbook to answer all the junior ophthalmologists' prayers? Almost, but not quite.

ALASDAIR PURDIE

Contact Lens Complications. By Nathan Efron. Pp 193 plus CD-Rom; £55. Oxford: Butterworth-Heinemann, 1999. ISBN 0-7506-0582-0.

This book is of very attractive design. The generous format, matt paper, and uncrowded layout immediately invite attention.

It has copious illustrations of generally excellent quality. Detail in a few of the photographs is a little unclear, but that is a reflection of the difficulty of imaging subtle ocular pathology.

The book opens with a "Tabular summary of contact lens complications" Some of the "conditions" listed sit rather uncomfortably in the first column because they are not caused by, although they may be relevant to, lens wear. They deserve their place because of their potential influence on lens wear, but a more appropriate description might have been better.

Also, anterior segment specialists have been trying to replace the earlier descriptions of eyelid margin disease because they are ambiguous. The simplified classification of "anterior lid margin disease" (ALMD), "posterior lid margin disease" (PLMD), and "mixed anterior and posterior lid margin disease" (ALMD/PLMD) has been introduced to ease the confusion. It would have been good to see this terminology perpetuated here.

Aside from these points there is nothing much to criticise. The content is accurate, well researched, well referenced, and is presented in a way that draws attention.

Coverage of medical matters is limited, but then it would be unreasonable to expect the book to excel in this domain too. Readers can embrace the work for its excellent handling of aetiology, pathogenesis, and contact lens related care.

The last chapter, and the appendices, are devoted to the author's grading system for contact lens related disorders. Grading systems can be useful to achieve consistency in description, particularly between observers, if used conscientiously, but they can be too time consuming to apply in routine clinical practice.

The author's scheme follows a fairly universal format of four levels of severity of signs from "0" (minimal) to "4" (most severe). His novel contributions are to define the grades using a set of splendid paintings rendered by Terry Tarrant and to include a dual format compact disk carrying morphs of the illustrations. Morphs are computer generated animations that flow from one end of the descriptive scale to the other. Viewed side by side with the patient they could assist greatly in the making of consistent records.

Professor Efron has given us a rare work—a fine and comprehensive production with several unique features. It deserves to be studied by any clinician with an interest in contact lens work.

C STEVEN BAILEY

NOTICES

Vision 2020: the cataract challenge

The latest issue of *Community Eye Health* (34) discusses cataract blindness and surgery with an editorial by Allen Foster. For further information please contact *Community Eye Health*, International Centre for Eye Health, Institute of Ophthalmology, 11–43 Bath Street, London EC1V 9EL. (Tel: (+44) (0) 20-7608 6909/6910/6923; fax: (+44) (0) 7250 3207; email: eyesresource@ucl.ac.uk) Annual subscription £25. Free to workers in developing countries.

Residents' Foreign Exchange Programme

Any resident interested in spending a period of up to one month in departments of ophthalmology in the Netherlands, Finland, Ireland, Germany, Denmark, France, Austria, or Portugal should apply to: Mr Robert Acheson, Secretary of the Foreign Exchange Committee, European Board of Ophthalmology, Institute of Ophthalmology, University College Dublin, 60 Eccles Street, Dublin 7, Ireland.

Singapore National Eye Centre 10th Anniversary International Congress

The Singapore National Eye Centre 10th Anniversary International Congress will be held in conjunction with 3rd World Eye Surgeons Society International Meeting on 1–4 December 2000 at the Shangri-La Hotel, Singapore. Further details: Ms Hua Meng Lee, The Organising Secretariat, Singapore National Eye Centre, 11 Third Hospital Avenue, Singapore 168751 (tel: (65) 3228374; fax: (65) 2277290; email: sneopr@pacific.net.sg).

The Hong Kong Ophthalmological Symposium '00

The Hong Kong Ophthalmological Symposium '00 will be held 4–5 December 2000, in Hong Kong, China. Further information: Miss Vicki Wong, Room 802, 8/F Hong Kong Academy of Medicine, 99 Wong Chuk Hang

Road, Aberdeen, Hong Kong (tel: (852) 2761 9128; fax: (852) 2715 0089; email: cohk@netvigator.com).

American Institute of Ultrasound in Medicine—Millennium Ultrasound Course Series

A course entitled "Obstetrical Ultrasound" will be held in Marina del Rey, CA, on 12–14 January 2001. Further details: Stacey Bessling, Public Relations Coordinator, AIUM, 14750 Sweitzer Lane, Suite 100, Laurel, MD 20707-5906, USA (tel: 301-498-4100; email: sbessling@aium.org).

Optometry Study Tour to Kenya, Tanzania, and Zanzibar

The tour offers a wonderful opportunity to optometrists and ophthalmologists to examine eye care in East Africa. It will take place from 28 January to 10 February 2001. Further details: Master Travel, Croxted Mews, 288 Croxted Road, London SE24 9BY (tel: 0208 678 5320; fax: 0208 674 2712; email: tours@mastertravel.co.uk).

First International Congress on Non-Penetrating Glaucoma Surgery

The First International Congress on Non-Penetrating Glaucoma Surgery will take place in Lausanne, Switzerland on 1–2 February 2001. Further details: Dr Tarek Shaarawy, Organising Committee, University of Lausanne, Hopital Ophtalmique Jules Gonin, Avenue de France 15, 1004 Lausanne, Switzerland (tel: 41 21 626 81 11; fax: 41 21 626 88 88; website: www.glaucoma-lausanne.org).

Call for papers—6th European Forum on Quality Improvement in Health Care, 29–31 March 2001, Bologna, Italy

Further details: BMA/BMJ Conference Unit, BMA House, Tavistock Square, London WC1H 9JP, UK (tel: +44 (0) 20 7383 6409; fax: +44 (0) 20 7383 6869; email: quality@bma.org.uk; website: www.quality.bmjpg.com).

Optometry 01

Optometry 01 will take place on 21–23 April 2001 with more than 100 events—lectures

and workshops—at the Atrium Gallery, NEC, Birmingham, UK. Further details: tel: 0207 261 9661; email: info@Optometry01.co.uk; website: www.optometry01.co.uk.

14th Annual Meeting of German Ophthalmic Surgeons

The 14th Annual Meeting of German Ophthalmic Surgeons will be held in the Meistersingerhalle, Nuremberg, Germany on 17–20 May 2001. Further details: MCN Medizinische Congress-organisation Nuremberg AG, Zerzabelshofstrasse 29, 90478 Nuremberg, Germany (tel: ++49-911-3931621; fax: ++49-911-3931620; email: doerflinger@mcn-nuernberg.de).

European Association for the Study of Diabetic Eye Complications (EASDEC)

The next meeting of the European Association for the Study of Diabetic Eye Complications (EASDEC) will be held in Paris, France, on 19–20 May 2001. Further details: Colloquium, 12 Rue de la Croix Faubin, 75 557 Paris Cedex 11, France (tel: +33-1-44 64 15 15; fax +33-1-44 64 15 10; email: s.mundler@colloquium.fr).

American Institute of Ultrasound in Medicine—Millennium Ultrasound Course Series

A course entitled "Obstetrical and Gynecological Ultrasound" will be held in New York City, NY, on 24–26 August 2001. Further details: Stacey Bessling, Public Relations Coordinator, AIUM, 14750 Sweitzer Lane, Suite 100, Laurel, MD 20707-5906, USA (tel: 301-498-4100; email: sbessling@aium.org).

4th International Conference on the Adjuvant Therapy of Malignant Melanoma

The 4th International Conference on the adjuvant therapy of malignant melanoma will be held at The Royal College of Physicians, London on 15–16 March 2002. Further details: Conference Secretariat, CCI Ltd, 2 Palmerston Court, Palmerston Way, London SW8 4AJ, UK (tel: + 44 (0) 20 7720 0600; fax: + 44 (0) 20 7720 7177; email: melanoma@confcomm.co.uk; website: www.confcomm.co.uk/Melanoma).