LETTER TO THE EDITOR

Alternative method for laser treatment of superior retinal tears in eyes with gas tamponade

SIR,—Intraocular injection of slow absorbing gases either as a primary procedure or in addition to conventional buckling operations has become widespread.

While the tamponade obtained by the intraocular gas is sufficient for closure of retinal tears and absorption of subretinal fluids, it does not detract from the need for either cryo or photocoagulation in order to obtain stable retinal attachment following an initial attachment of the retina.¹ Laser treatment of a retinal tear in the superior 2 o'clock position through a gas bubble is, however, sometimes difficult. The multiple curved refracting surfaces and the flattening effect of the gas on the tear's edges make the tear at times difficult to localise. To overcome this problem the patient's head is tilted to the side at the slit-lamp, thus moving the gas bubble to one side and allowing a view of the tear unhindered by a gas interface.² We found this manoeuvre to be difficult for some patients who cannot tilt their head enough, especially when the tear is located in the superior 2 o'clock position.

We developed an alternative method which is illustrated in Figure 1. This requires the

Figure 1 Upper: the eye looks straight ahead and the intermediately tilted mirror (67°) of the three mirror contact lens is best suited for viewing anteriorly located tears. Lower: the patient looks down, which results in the gas bubble moving backwards away from the tear. The three mirror contact lens is also tilted inferiorly so as not to lose contact with the cornea. When the contact lens is tilted down however, the most vertical (73°) mirror of the contact lens is now better suited for viewing an anterior tear.

patient to look down, which results in the gas bubble moving backwards away from the tear (lower diagram). The three mirror contact lens is tilted inferiorly so as not to lose contact with the cornea, and the most vertical (73°) mirror is used. This contrasts with the more normal use of the contact lens when the eye looks straight ahead, and the intermediately tilted mirror (67°) of the three mirror contact lens is better suited for viewing anteriorly located tears (upper diagram). We successfully implemented this technique in both phakic and aphakic eyes following primary gas injection and following gas injection after a previous

buckling operation. We recommend its use in such cases when the retinal tear is located in the superior 2 o'clock position of the eye.

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- 1 Tornambe PE. Pneumatic retinopexy. *Surv Ophthalmol* 1988; 32: 270–81.
- 2 Hilton GF, Grizzard WS. Pneumatic retinopexy – a two-step outpatient operation without conjunctival incision. *Ophthalmology* 1987; 94: 307–14.

BOOK REVIEWS

General Ophthalmology 1989. 12th Edn. Eds Daniel Vaughan, Taylor Asbury, Khalid F Tabbara. Pp 460. £26.65. Prentice-Hall: Hemel Hempstead, Hertfordshire, 1989.

The updated edition of the well known paperback came out in 1989. Because of its important position in the 'early postgraduate' part of the book market in British ophthalmology, it seems relevant to review it even at this stage. This 12th edition contains a number of changes including a specific chapter on lasers, a thoroughly revised chapter on neuro-ophthalmology (the editors have gone straight to the top, this chapter being written by Chavis and Hoyt), and a new section on low vision. Other parts have also been upgraded, including anatomy, embryology, and examination techniques. The strong chapter on ocular disorders associated with systemic disease (by Sanders and Graham) now includes a section on AIDS.

Chapters are laid out in a methodical fashion; basic sciences first, then examination and clinical material divided into broad groups. At the end there are appendices dealing with visual standards and aspects of visual function, a glossary of terms and a comprehensive index.

The main value of this book has always been to those who need more than an undergraduate textbook but have neither the resources nor desire to purchase one of the more substantial textbooks in this group which include Newell's *Principles and Concepts* and Kanski's *Clinical Ophthalmology*. This edition maintains this appeal, even enhancing it, at the same time containing considerable information and remaining brief.

Highlights include the chapter on examination (although the emphasis on Schiotz tonometry may puzzle young ophthalmologists in the UK) and the conjunctival chapter. The latter has always been a strong point and will continue to delight junior doctors who like learning lists. The general standard of the contributions is high with no major weak areas in content. Text is both easy to read and understand. A selection of references is given at the end of each chapter.

There are some minor flaws. The lack of colour plates must remain a problem to some potential buyers and the US bias of the appendices reduces their value on this side of the Atlantic. At this price it can be used intensively and discarded when the next edition appears.

Overall this will prove a useful book to junior

ophthalmologists who need a ready reference when seeing unusual clinical presentations in the evening and at weekends, and to general practitioners taking an interest in ophthalmic diagnosis and treatment.

CHARLES SANDY
JOHN BRAZIER

World's Major Blinding Conditions. Edited by Arthur Lim Siew Ming. Pp 204. **Leaders in Ophthalmology in the Asia-Pacific.** Edited by Lim Kuang Hui. Pp 280. **Major Eye Centres of the World.** Eds Lim Kuang Hui, Arthur Lim Siew Ming. Pp 190. Complete set in case US\$45.50 plus postage US\$12. Published by XXVI International Congress of Ophthalmology, 1990, c/o Department of Ophthalmology, National University Hospital, Lower Kent Ridge Road, Singapore 0511.

This compendium of articles to mark the XXVI International Congress of Ophthalmology, Singapore, 1990, is presented as a trilogy. For the student of worldwide ophthalmology they provide a stimulating introduction to the huge variety of ophthalmological needs in the developing world – with descriptions of major blinding diseases, past and present achievements in the Asia-Pacific countries in prevention of blindness, and eye centres which contribute to the campaign against world blindness.

World's Major Blinding Conditions, published eight years ago as *Vision*, has been updated in this second edition. Well-known contributors in this field have discussed world blindness and its prevention, cataract, glaucoma, blinding malnutrition, blinding ocular infections, ocular trauma, and diabetic retinopathy. Trachoma and onchocerciasis deserve more space and emphasis within the text, and a section on leprosy and the eye would enhance the overall presentation. However, the text provides valuable information which will be a source of reference for those aware of these huge problems in eye care and will open the eyes of the uninitiated. The important issue of intraocular lens implant surgery versus traditional intracapsular cataract surgery in the developing world, including discussion of eye camps and alternative cataract surgical delivery services, is introduced.

Leaders in Ophthalmology in the Asia-Pacific. For readers interested in the origins of ophthalmology in many countries of the region and how our specialty has developed this volume gives fascinating background information. Besides single articles on individual countries the text broadens to include papers on the Asia-Pacific Academy of Ophthalmology, the World Health Organisation (Ophthalmic Training in the Third World), the International Agency for the Prevention of Blindness, and National Prevention of Blindness Campaigns and Eye Health Care. The title of the volume requires a delicate approach in presentation by the invited authors as each is a recognised leader in ophthalmology in his or her own country.

MURRAY MCGAVIN

Major Eye Centres of the World is a short collection of self appraisals of contributing centres. This colourful tour of 24 ophthalmic institutions illustrates some of the variety of approach and thought that exists within our specialty. The largely common aims of the institutions are influenced by financial, cultural, personal, and government factors which emerge in the varying accounts.

IAN MURDOCH

Evoked Potential Manual: A Practical Guide to Clinical Applications. 2nd revised edn. Eds EJ Colon, S L Visser. Pp 358. £86.00. Kluwer: London, 1990.

Evoked potentials are electrical changes elicited from the peripheral and central nervous system by a range of different stimuli. The subject extends into many different clinical specialties, and this multiauthor textbook provides a basic knowledge of the subject. There is a need to try and draw together such a diversity of techniques, but in a book of this kind it is not surprising that the clinical ophthalmologist will only find a short section relevant to the eye and visual pathway. Nevertheless the electrophysiologist will find the book to be a very useful and an excellent reference source.

N R GALLOWAY

All titles reviewed here are available from the BMJ Bookshop, PO Box 295, London WC1H 9TE. Prices include postage in the UK and for members of the British Forces Overseas, but overseas customers should add 15% to the value of the order for postage and packing. Payment can be made by cheque in sterling drawn on a UK bank, or by credit card (Mastercard, Visa, or American Express), stating card number, expiry date, and full name.

OBITUARY

HANS GOLDMANN

Hans Goldmann was born in Komotau, Bohemia on 21 November 1899 and died 19 November 1991, shortly before his ninety-second birthday. He received a classical education at the Jesuit College in his native town, which now belongs to Czechoslovakia. He studied medicine in Prague and completed his doctoral thesis in 1923. In Prague he was assistant to A Tschermak-Seysenegg, the physiologist, and later to A Elschmig, one of the leading ophthalmologists and eye surgeons of his time. Those days with Tschermak provided the basis for Goldmann's future work and also for a long-lasting friendship with H Burian, who was his colleague. In 1924 he moved to Berne as assistant to A Siegrist, and in 1927 he became assistant medical director (Oberarzt). In 1930 he qualified as a university lecturer (Privatdozent), and in 1935 he succeeded A Siegrist as professor and head of the University Eye Hospital in Berne. From 1945 to 1946 he served as dean of the Medical School and in 1965 as rector magnificus of the University of Berne.

He spent sabbatical periods of varying duration at the Department of Ophthalmology, Washington University, St Louis, Missouri, at the time when B Becker led this thriving department. Many friendly relations were initiated at this time, such as those with Bob Moses, Jay Enoch, and many others. The exchange of young researchers between St Louis and Berne became an extremely fruitful habit.

After retiring in 1968 Goldmann still continued research until his eighties. Stereochronoscopy of the optic nerve head was his main contribution in this period. To visit and to talk with him was intellectually extremely rewarding, although he suffered in his last

years from many illnesses. Certainly there is no other ophthalmologist, and probably no one else in any other field, who has left such an impression on his specialty like Hans Goldmann did, and this impression still has an effect in daily practice in the western world after almost 50 years: the construction of a new slit-lamp, the Haag-Streit 360 in 1933, later the Haag-Streit slit-lamp 900, which is still the world standard, then publication of the *Basics of exact perimetry* together with the introduction of the Goldmann perimeter in 1945, which set the standard for at least 40 years in perimetry until automated perimetry became used in daily practice.

His work on biomicroscopy of the chamber angle, of the central and peripheral fundus, and of the vitreous with the gonioscopic, the three-mirror Goldmann, and the 'macula' lenses in 1949, and the introduction of the applanation tonometer in 1956 provided the essential tools for the daily work of ophthalmologists around the world. He did not invent all these gadgets from scratch, but the ones already invented, like the slit-lamp, the gonioscopic lens, or the applanation tonometer, he changed into appropriately made, handy, easily applicable instruments.

Standing out among his many experiments, observations, and inventions are his work on cataract formation and on determination of the volume of production of the aqueous, his critical evaluation of tonography, his instrument for objective determination of visual acuity, the slit-lamp fluorophotometer, the instrumentation for cell count in the anterior chamber, and finally that for stereochronoscopy of the optic nerve head.

He was a keen observer and had a sixth sense for explication of clinical entities. As early as 1952 he implicated oxygen as being responsible for retinopathy of prematurity. He was certainly, for almost half a century, one of the world's experts in glaucoma. He was not only a scientist, but also a caring and beloved doctor of his patients.

His inventions and his scientific work fascinate by their modest expense and straightforwardness. His department did not emanate from quantity, but by the amount of thinking and brilliant discussions. Hans Goldmann's lectures to the students were the highlights of the curriculum of Berne. Being the inspiring teacher, he trained the majority of department heads and professors of ophthalmology in Switzerland, such as R Witmer, A Bangerter, P Niesel, F Fankhauser, G Eisner, G Schmitt,

and also had some ophthalmic grandchildren, such as J Flammer, F Körner, and myself.

Hans Goldmann never gave a paper on the same subject twice. When, after a period of illness he could not present anything new, he refused to give the Fuchs Lecture in Vienna when he was about 70 years old. Later, he could still give the Aschoff Memorial Lecture. He received the Vogt Prize, was the first continental European to receive the Proctor medal, was awarded the Gullstrand, Gonin, Donders, and Graefe medals, and gave the Doyne, Montgomery, Arthur Bedell, and Proctor lectures.

Hans Goldmann's observations and experiments on thermal radiation and glass-blower's cataract, which led the young ophthalmologist to a 300-page-long academic battle with Alfred Vogt in *Graefe's Archives* in the 1930s, was in reality life-threatening for him, because he was a foreigner in Switzerland, and Jewish. If he had had to go back to Germany or to Czechoslovakia, his future would have become extremely doubtful, but what Swiss and world ophthalmology would have lost, if he had not received the chair in Berne, is unimaginable. Later, he became a Swiss citizen and, in his radiance, Swiss ophthalmology could flourish.

He and his gracious wife, Erna, were perfect hosts in their homes in Brissago and Berne. There, she provided a peaceful yet stimulating refuge to which he could withdraw after his daily intensive activities in the Insel-Spital. His achievements are confirmation of her own great success in accomplishing that task.

To witness Goldmann's enormous knowledge in almost every field of science from archeology to history to physics – he read Newton in the original publications – and mathematics was extremely impressive. We have lost one of the giants of science, and we are proud that he worked for ophthalmology.

BALDER P GLOOR
ZURICH, SWITZERLAND

NOTES

European Society of Cataract and Refractive Surgery

The Xth Congress of the European Society of Cataract and Refractive Surgery will be held in Paris on 6–10 September 1992. Further details, Executive Office: Organisation 7, BP 77, 18 Avenue Egle, 78600 Maisons-Laffitte, France (Tel: 33 (1) 39 62 69 00. Fax: 33 (1) 39 62 28 08); or Scientific Office: Dr D Lebuissou, Congress, CMC Foch, BP 36, 92151 Suresnes Cedex, France. (Tel: 33 (1) 40 99 98 30. Fax: 33 (1) 40 99 98 49.)

Uveitis and retinal frontiers

The Francis I Proctor Foundation for Research in Ophthalmology of the University of California School of Medicine at San Francisco presents its 3rd Annual meeting entitled 'Uveitis and Retinal Frontiers' from 10–13 September 1992 at the Carmel Valley Ranch Resort, Carmel, California. Further details: University of California, Extended Programs in Medical Education, Room LS-105, San Francisco, CA 94143-0742, USA. (Tel: (415) 476-4251.)