

CORRESPONDENCE

Use of sulphur hexafluoride for anterior chamber reformation following trabeculectomy

EDITOR.—Flat anterior chamber (AC) is a significant complication following trabeculectomy, which can cause serious sequelae.¹ Treatment of flat AC may include drugs, torpedo dressing, or megasoft contact lens and reformation using hyaluronic acid, BSS, expandable gases, or air.^{2,3}

Between 1989 and 1996, 15 patients in our department underwent reformation of flat AC with sulphur hexafluoride (SF₆) following a first standard Cairns trabeculectomy. Nine patients had open angle glaucoma, three closed angle, two pseudoexfoliation, and one juvenile glaucoma. All eyes were phakic. Following the trabeculectomy, all patients suffered from flat AC and hypotony, and six of them also had corneal decompensation. Reformation was performed by injecting 25–100% SF₆ via a paracentesis, to fill two thirds of the AC. Three patients needed repeat reformation. All ACs eventually remained deep with normal intraocular pressure (IOP). The IOP values, with a gas bubble present in the AC, did not exceed 22 mm Hg, and are shown in Figure 1. None of the patients needed extraction of gas for any reason.

The mean follow up period was 13 months. There were no corneal complications. In four patients, a cataract developed or progressed. At the end of follow up, 11 patients had normal IOP without anti-glaucoma treatment.

Successful reformation of the AC following filtration surgery by perfluoropropane, air, sodium hyaluronate, or SF₆ has been reported previously.^{4–6} We prefer SF₆ since it lasts in the AC for an optimal period of time (up to 10 days, depending on the concentration); it remains as a single bubble, deepening the AC until aqueous gradually replaces it. Although corneal toxicity with SF₆ has been previously reported,⁷ none of our patients developed corneal complications.

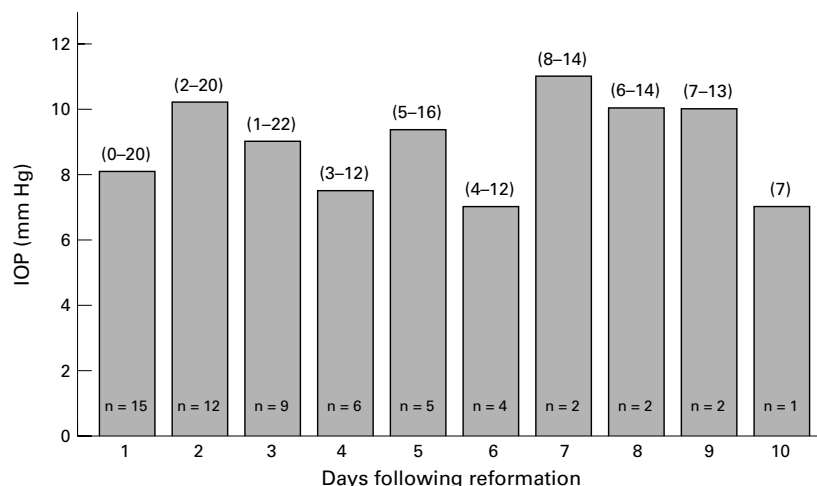


Figure 1 Average intraocular pressure (IOP) among patients following reformation while gas present in the anterior chamber. Numbers within the columns represent number of patients. Numbers above the columns show range of IOP.

We find the use of SF₆ to be simple, safe, and effective. We recommend it in patients after trabeculectomy with prolonged hypotony, overfiltration, and flat AC, with or without corneal decompensation, in whom conservative treatment has failed.

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- 1 Stewart WC, Shields MB. Management of anterior chamber depth after trabeculectomy. *Am J Ophthalmol* 1988;106:41–4.
- 2 Shields MB. *Textbook of glaucoma*. 3rd ed. Baltimore: Williams & Wilkins, 1992.
- 3 Hoskins HD, Kass M. *Becke-Shafner's diagnosis and therapy of the glaucomas*. St Louis: Mosby, 1989.
- 4 Wilson RM, Yoshizumi MO, Lee DA, et al. Use of intraocular gas in flat anterior chamber after filtration surgery. *Arch Ophthalmol* 1988;106:1345.
- 5 Franks WA, Hitchings RA. Intraocular gas injection in the treatment of cornea-lens touch and choroidal effusion following fistulizing surgery. *Ophthalmic Surg* 1990;21:831–4.
- 6 Austin MW, Wishart PK. Reformation of the anterior chamber following trabeculectomy. *Ophthalmic Surg* 1993;24:461–6.
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Myopia

EDITOR.—Flitcroft's recent commentary¹ asserts "myopia clearly represents the failure of the normal emmetropisation mechanisms" but that "myopia may represent a physiological adaptation to prolonged near work with the mechanisms of the emmetropisation regulating eye growth to a state that minimises retinal image blur for near". These two apparently contradictory views beg the question as to what is normality in the context of refractive status.

Ophthalmology has embraced the current trend in medicine towards using quality of life measures as outcome indicators. Indeed, such measures have been used to evaluate outcomes of laser correction of myopia.^{2,3} It is said that to become myopic has a potentially negative impact on self esteem, career choice, and ocular health.⁴

However, we have been unable to identify baseline studies which indicate whether myopes themselves feel they have a significantly impaired quality of life, and if so, at what degree of myopia problems can be expected. Before committing further resources in efforts to treat myopia, it should surely be more clearly demonstrated that there is a patient driven demand for such intervention.

Without this evidence, it could be argued that we fail to recognise that the increase in the prevalence of myopia⁵ is nothing more than the adaptation of an increasingly literate, predominantly urbanised population who may use near vision for a large proportion of their waking hours. Furthermore, treatments which "cure" myopia may deprive middle aged moderate myopes of the ability to perform near work without optical correction. Increased longevity means that for many people their life expectancy is such that the majority of their years will be in a presbyopic state.

While we recognise that innovative refractive procedures are a natural development of microsurgical techniques and they are likely to gain a justified place in the treatment of high degrees of refractive error, we feel that there is need for more information about those myopes (about 20% of the population) who are as yet not putting themselves forward for anything other than conventional optical management.

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- 1 Flitcroft DI. Ophthalmologists should consider the causes of myopia and not simply treat its consequences. *Br J Ophthalmol* 1998; 82:210–11.
- 2 Freitas C, Oliveros BM, Marques E, et al. Effect of photorefractive keratectomy on visual functioning and quality of life. *J Refract Surg* 1995;11:5327–34.
- 3 McGhee CNJ, Orr D, Kidd B, et al. Psychological aspects of excimer laser surgery for myopia: reasons for seeking treatment and patient satisfaction. *Br J Ophthalmol* 1996;80:873–9.
- 4 Au Eong KG, Tay TH, Lim MK. Race, culture and myopia in 110,236 young Singaporean males. *Singapore Med J* 1993;34:29–32.
- 5 Mutti DO, Kadnik K, Adams AJ. Myopia. The nature versus nurture debate goes on. *Invest Ophthalmol Vis Sci* 1996;37:952–7.

Reply

EDITOR.—Rose and Tullo suggest that we need more evidence that there is a real demand from myopes for methods of treatment before committing resources to research in this field. Certainly no ophthalmologist should be encouraging contented myopes to undergo any form of intervention be it surgical, pharmacological, or behavioural. Equally, the contentedly myopic should not assume that other myopes share their contentment. The number of people who willingly undergo refractive procedures and express high levels of satisfaction afterwards is surely an indication of demand.

Rose and Tullo also raise the issue that with increased longevity treatment of myopia will merely compound the inconvenience of presbyopia. Although presbyopia may be inconvenient to the emmetropic, myopia is also linked with other degenerative conditions

affecting the peripheral retina and macula that carry the risk of significant visual deficits. Understanding the physiological basis of the abnormal patterns of ocular growth that lead to myopia may allow us to prevent some of these associated conditions and the associated visual morbidity. Clearly such benefits will not arise from developments in refractive surgery but from a better understanding of the aetiology of myopia that will allow preventive strategies to be developed.

Management of the complications of myopia unquestionably falls within the current remit of ophthalmologists. The increased levels of myopia most notably seen in the Far East represent an increase in both the incidence and degree of myopia. While research on the demand among myopes for treatment strategies would be welcome, much more pressing are data relating to the implications of an increasingly long lived and myopic population for ocular morbidity. This will allow ophthalmologists to anticipate the increased demands on their services that will be the likely consequence of increased levels of myopia.

In the final analysis, arguing that myopia is an acceptable consequence of an increasingly literate urbanised population appears to me to be the equivalent of regarding a disabling condition of the legs as an acceptable consequence of an increasingly sedentary society.

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Automated perimetry by optometrists in patients at low risk of glaucoma

EDITOR.—The Royal College of Optometrists guidelines 1997¹ suggest routine eye tests include “visual field assessment on all relevant patients, especially those at risk of glaucoma (this includes all patients over age 40 years)”. It has been our clinical impression that many optometrists now routinely perform automated perimetry on all patients over the age of 40 years, identifying more false positives than treatable pathology.

We prospectively studied all asymptomatic patients referred from an optometrist with abnormal automated perimetry but normal ocular examination. Patients attending for glaucoma screening were excluded.

Eleven such patients were referred to this consultant's service over a 16 month period including two under 40 years old. All had corrected acuities of 6/9 or better bilaterally, had not reported any ocular symptoms, and had normal intraocular pressures and funduscopy according to the optometrist.

Suprathreshold perimetry was used in 10 cases (one not obtainable) with the optometrist attempting interpretation in only four—three described as bitemporal loss suggestive of chiasmal pathology (one was actually binasal) and one as an arcuate scotoma on the grey scale where only one spot had been missed.

Four patients were considered to have normal repeat visual fields, three had bitemporal field defects consistent with tilted optic discs but were followed up for a period to exclude progression, one had an old occipital infarct with a homonymous quadrantanopia, and one patient had a walled off schisis detachment. Bilateral field constriction was presumed functional in a patient with a normal magnetic resonance scan and

electrophysiology—an optometrist had referred her 4 years previously with similar findings. The remaining patient had suffered blurred vision and sensory disturbance 11 years before and was found to have bilateral field constriction and enlarged blind spots—the only identifiable pathology has been a parietal angioma which does not explain the pattern of field loss.

No serious, treatable pathology was identified in these patients and none was found to have glaucoma. Our findings do not support the routine use of automated perimetry in patients under the age of 60 years who have no symptoms and signs of pathology or risk factors for glaucoma. We propose that the Royal College of Optometrists guidelines be revised to recommend that automated perimetry be reserved for those with clinical evidence of ocular pathology and those over the age of 60 or with other risk factors for glaucoma.

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¹ *Royal College of Optometrists' Guidelines. 1.5 The Routine Eye Examination.* London: RCO, September 1997.

BOOK REVIEWS

Manual of Contact Lens Prescribing and Fitting. By Milton M Hom. Pp 418; £33.50. Oxford: Butterworth-Heinemann, 1997. ISBN 0 7506 9741 5.

This condensed American text succeeds in covering a very broad spectrum of contact lens care and related subjects. It ranges from the starting point for a novice to the most complex of lens types, fitting strategies, complications, and possible solutions. It contains such a wealth of information that it is difficult to justify naming part 1 “Basic concepts” where anterior segment disease, with respect to contact lenses, is covered so extensively.

The six chapters on rigid lenses and four on soft lenses traverse most aspects one would expect to encounter within routine practice. However, the contribution of gas permeable scleral lenses has not been acknowledged and no mention of this design appears. At times this text is almost too comprehensive although the “pearls” punctuating such passages lighten the weight of information.

Of the special topics covered, the chapter on dry eyes is particularly well written and the chapter covering fitting strategies for eyes following refractive surgery although brief is welcomed.

This manual is designed principally for the clinician working extensively in routine contact lens practice. It is highly informative. It is presented in a logical layout and should provide the answer to most contact lens problems within the realms of general practice. For the more specialised areas this is a good starting point. It is not the definitive work nor is it

so intended. The text is meant to be a chairside practical book and it achieves this aim. A welcome addition to the texts available in this field.

K A ROBINSON

Standard List of Medicines, Equipment, Instruments and Optical Supplies for District Level Eye Care Services.

Pp 16. Available from Allen Foster, International Centre for Eye Health, 11 Bath Street, London EC1V 9EL. Updated annually.

This is a list prepared by the task force of the Partnership Committee of Non Governmental Development Organisations involved in eye care and prevention of blindness. This 16 page booklet lists the essential equipment, instruments, and supplies which might be required for providing secondary level eye care, particularly in a developing country. Although the authors do not claim that the list is comprehensive it covers a very wide area, ranging from materials for the local production of eye drops to teaching materials in its 10 headings.

For each item a supplier is provided and an approximate price in US\$ is given.

This list has been produced to assist project managers and medical personnel who are involved in providing eye care services and will be updated annually. In its present form it provides a lot of very useful information. With feedback over time from consumers in the field it should become an increasingly valuable resource.

F D GREEN

Ophthalmology (Colour Guide). By Jack J Kanski. Pp 94; £9.50. Edinburgh: Churchill Livingstone, 1997. ISBN 0-443-05804-0.

This is part of a series of guides aimed at students and healthcare specialists in many disciplines. It may be used as an aide memoire before examinations, or as a quick reference to be carried in the pocket. Each pair of facing pages of this pocket sized book contains a collection of six 2" × 2" photographs supported by brief notes indicating the salient features of the conditions illustrated. The photographs are of excellent quality and content (one or two are a little small to do them full justice) and some may be familiar to readers of the author's other publications. The text notes are brief, but offer the reader a concise and clear classification of the diverse groups of conditions featured without being able to provide the amount of information an ophthalmologist would probably be seeking. There is not, either, a corresponding illustration for each condition described in the text. There is an index to facilitate quick reference. Readers will not be disappointed at the quality of the photography, and the undergraduate will find the text a good summary. The ophthalmologist would probably expect more to stretch him/her if using this as a revision aid.

A SCOTT

Ophthalmology (Picture Tests). By Jack J Kanski, Ken K Nischal. Pp 166; £9.50. Edinburgh: Churchill Livingstone, 1997. ISBN 0-443-06037-1.

This pocket sized book is intended to be a preparation for postgraduate examinations by delivering a series of structured viva voce style questions with photographs. There is a diverse

collection of conditions featured. The questions provide a basis for practice for both shorter factual answers and the development of open ended longer essay-like answers. These questions are again supported by excellent clinical photographs, some of which would be, on their own, a little small to see all the detail required from the questions. The answers section expands on the conditions in a logical and concise manner, but does not substitute for reading longer textbooks in the first place. It would seem that the authors appreciate the somewhat false examination conditions created by providing short cases in two dimensional photographs, rather than three dimensional patients, and rightly support their photographs with well judged text questions. The postgraduate examination candidate will appreciate this book for the practice it gives; for allowing expansion on the subjects tested; and for not being another multiple choice examination.

A SCOTT

NOTICE

Avoidable blindness

The latest issue of the *Community Eye Health* (no 25) discusses the elimination of avoidable blindness. With an editorial by Bjorn Thylefors, the director of the WHO Programme for the Prevention of Blindness and Deafness, the issue covers treatment of cataract in regions of India and the role of patient counsellors in increasing the uptake of cataract surgery and IOLs. 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) 171 608 6910; fax: (+44) 171 250 3207; email: eyesource@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.

Ophthalmological Clinic, University of Creteil

An international symposium on the macula will be held on 2-3 October 1998 at the Ophthalmological Clinic, University of Creteil. Further details: Professor G Soubrane, Chef de Service, Clinique Ophthalmologique Universitaire de Creteil, Centre Hospitalier Intercommunal, 40 Avenue de Verdun, 94010 Creteil, France. Fax: 01 45 17 52 27.

IV meeting of the European Society for Out-Patient Eye Surgery (ESOPES)

The IV meeting of the European Society for Out-Patient Eye Surgery (ESOPES) will be held in Vittel, France on 9-11 October 1998. Further details: Mrs Nicole Charron, Director, Palais des Congrès, Av Bouloumie, BP 57, 8802 Vittel, France. (Tel: +33 329 08 18 30; fax: +33 329 08 6601.)

Ophthalmological Clinic, University of Creteil

The 3rd international symposium will be held on 21 November 1998 at the Ophthalmological Clinic, University of Creteil. Further details: Professor G Soubrane, Chef de Service, Clinique Ophthalmologique Universitaire de Creteil, Centre Hospitalier Intercommunal, 40 Avenue de Verdun, 94010 Creteil, France. Fax: 01 45 17 52 27.

Vth International Symposium on Graves' Ophthalmology

The Vth International Symposium on Graves' Ophthalmology will be held on 27-28 November 1998 in Amsterdam. Further details: Amsterdam Thyroid Club, Department of Endocrinology, F5-171, Academisch Medisch Centrum, Meibergdreef 9, 1105 AZ Amsterdam, Netherlands.

Hong Kong Ophthalmological Symposium 98

The Hong Kong Ophthalmological Symposium 98 on myopia will be held on 28-29 November 1998 at the Hong Kong Convention and Exhibition Centre. Further details: Dr Woon-ming Chan, Secretary, Organising Committee, Hong Kong Ophthalmological Symposium 98, University Eye Centre, 3/F, Hong Kong Eye Hospital, 147K Argyle Street, Kowloon. (Tel: (852) 2761 9128; fax: (852) 2715 0089; email: cohk@netvigator.com)

Singapore National Eye Centre

The 3rd SNEC international meeting and 11th international meeting on cataract, implant, microsurgery and refractive keratoplasty (ICIMRK) will be held at the Shangri-La Hotel, Singapore on 28-30 November 1998. Further details: Organising Secretariat, 3rd SNEC International Meeting and 11th ICIMRK, Singapore National Eye Centre Pte Ltd, 11 Third Hospital Avenue, Singapore 168751. (Tel: (65) 2277-255; fax: (65) 2277-290/1)

Office of Continuing Medical Education

The 11th Annual Wilmer Institute's Current Concepts in Ophthalmology will be held on 10-12 December 1998 at the Johns Hopkins Medical Institutes. Further details: Program Coordinator, Johns Hopkins Medical Institutions, Office of Continuing Medical Education, Turner 20/720 Rutland Avenue, Baltimore, MD 21205, USA. (Tel: (410) 955-2959; fax: (410) 614-8613; email: cmenet@som.adm.jhu.edu)

American Academy of Optometry—Academy '98

The American Academy of Optometry, Academy '98 will be held on 10-14 December 1998 at the San Francisco Hilton and Towers, San Francisco, California, USA. The call for abstracts may be requested at (301) 984-1441 or meetings@aaoptom.org or on the web site www.aaopt.org

7th Rotterdam International Skull Base Day/Essex course

The 7th Rotterdam International Skull Base Day/Essex one day course on orbital and periorbital lesions will be held on 23 January 1999. Further details: Mrs K Sipman, PO Box 1738, 3000 DR Rotterdam, Netherlands. (Tel: +31 10 40897787; fax: +31 10 4362762)

Ophthalmic technologies

The 9th Ophthalmic Technology Conference will be held on 23-24 January 1999 during the International SPIE symposium on biomedical optics. Further information: The SPIE Organisation, PO Box, Bellingham, WA 98227-0010, USA. (Fax: (+1) 360-647-1445; email: www.spie.org/info/pw)

Laser eye injuries

A conference on the epidemiology, prevention, diagnosis, and therapy of laser eye injuries will be held in San Jose, California on 25-26 January 1999 during the International SPIE symposium on biomedical optics. Further information: The SPIE Organisation, PO Box, Bellingham, WA 98227-0010, USA. (Fax: (+1) 360-647-1445; email: www.spie.org/info/pw)

Office of Continuing Medical Education

The 21st Annual Wilmer Institute's Current Concepts in Ophthalmology will be held on 4-9 February 1999 at the Hyatt Regency Cerromar Beach Hotel, Dorado, Puerto Rico. Further details: Program Coordinator, Johns Hopkins Medical Institutions, Office of Continuing Medical Education, Turner 20/720 Rutland Avenue, Baltimore, MD 21205, USA. (Tel: (410) 955-2959; fax: (410) 614-8613; email: cmenet@som.adm.jhu.edu)

Office of Continuing Medical Education

The 16th Annual Wilmer Institute's Current Concepts in Ophthalmology will be held on 14-19 March 1999 at the Manor Vail Lodge, Vail, Colorado, USA. Further details: Program Coordinator, Johns Hopkins Medical Institutions, Office of Continuing Medical Education, Turner 20/720 Rutland Avenue, Baltimore, MD 21205, USA. (Tel: (410) 955-2959; fax: (410) 614-8613; email: cmenet@som.adm.jhu.edu)

Ophthalmological Clinic, University of Creteil

An international symposium on the macula will be held on 26–27 March 1999 at the Ophthalmological Clinic, University of Creteil. Further details: Professor G Soubrane, Chef de Service, Clinique Ophtalmologique Univeristaire de Creteil, Centre Hospitalier Intercommunal, 40 Avenue de Verdun, 94010 Creteil, France. Fax: 01 45 17 52 27.

XII Congress European Society of Ophthalmology

The XII Congress European Society of Ophthalmology will be held in Stockholm, Sweden on 27 June–1 July 1999. Further details: Congress (Sweden) AB, PO Box 5819, S-114 86 Stockholm, Sweden. (Tel: +46 8 459 66 00; fax: +46 8 661 91 25; email: soe@congrex.se; <http://www.congrex.com/soe/>)

4th Meeting of the European Neuro-Ophthalmology Society

The 4th meeting of the European Neuro-Ophthalmology Society will be held on 29 August–2 September 1999 in Jerusalem, Israel. Further details: Secretariat, 4th Meeting of the European Neuro-Ophthalmology Society, PO Box 50006, Tel Aviv, 61500, Israel. (Tel: 972-3-514000; fax: 972-3-5175674/972-3-5140077; email: Eun099@kenes.com)

Ophthalmological Clinic, University of Creteil

An international symposium on the macula will be held on 1–2 October 1999 at the Ophthalmological Clinic, University of Creteil. Further details: Professor G Soubrane, Chef de Service, Clinique Ophtalmologique Univeristaire de Creteil, Centre

Hospitalier Intercommunal, 40 Avenue de Verdun, 94010 Creteil, France. Fax: 01 45 17 52 27.

Jules François Prize

The 2000 Jules François Prize of \$100 000 for scientific research in ophthalmology will be awarded to a young scientist who has made an important contribution to ophthalmology. All topics in the field of fundamental and/or clinical research in ophthalmology will be considered. The application should be sent jointly with a curriculum vitae, the list of all publications, and three copies of the candidate's 10 most relevant publications to Jules François Foundation Secretary, Professor Dr M Hanssens, Dienst Oogheelkunde, de Pintelaan 185, B-9000 Gent, Belgium. Deadline for applications 31 December 1999.