

treatment in this acute situation consists of systemic steroids to suppress the reaction. High doses of clofazamine and thalidomide have been tried in cases where steroids are unobtainable or contraindicated but their action is too slow and they are generally ineffective.

One other error in the article, which escaped both our notice, was the statement that paralysis of the maxillary branch of the facial nerve causes lagophthalmos. This should of course have read 'the zygomatic branch', and I am grateful for this opportunity to rectify this.

T J FFYTCHÉ  
St Thomas' Hospital,  
London SE1 7EH

### Fluphenazine induced welding arc maculopathy?

SIR,—Powers *et al* have presented the case of a 45-year-old male welding trainee who incurred bilateral maculopathy supposedly due to unprotected exposure of less than 2 minutes' duration to a manual metal arc welding unit.<sup>1</sup> They believe that fluphenazine, which had accumulated in his retinal pigment epithelium (due to 10 years' treatment for depression), rendered him particularly susceptible to retinal damage.

The authors further state that 'one of the unusual features of this case is that though the patient was only welding for two minutes he developed a bilateral maculopathy without any evidence of a keratitis'. In the early part of the paper they mention that 'there was no accurate record of the exact duration of exposure'.

Is it not possible then, that: (1) the exposure might have been actually longer than 2 minutes; (2) fluphenazine may have accumulated in corneal tissues but rendered them more resistant to photic damage thus explaining the lack of keratitis in the presence of maculopathy?

This paper inspires one to conduct an experimental study on animals put on long term fluphenazine. Noting any accumulation of the drug in corneal tissues and the thresholds for photic keratopathy seems in order.

A S NEKI  
Mahatma Gandhi Institute of Medical Sciences,  
Sevagram, Wardha, Maharashtra, India

1 Power WJ, Travers SP, Mooney DJ. Welding arc maculopathy and fluphenazine. *Br J Ophthalmol* 1991; 75: 433-5.

### Reply

SIR,—In reply to Dr Neki's letter we would like to make the following points:

(1) Although there was not an exact record of the involved exposure time both the patient and the instructor were quite sure that the exposure duration was no longer than 2 minutes.

(2) Dr Neki suggests that fluphenazine may have accumulated in the patient's cornea and may therefore have rendered it more resistant to photic damage. He further suggests that this may then explain the lack of keratitis in the presence of maculopathy. However the literature would suggest otherwise. In a study on the concentration of phenothiazines in the eye of experimental animals Potts<sup>1</sup> has shown that the concentration of prochlorperazine in rabbit cornea is less than 100th that of the concentration in choroid. He found similar results when he looked at the ocular distribution of phenothiazine in hamsters. It would seem unlikely, therefore, that fluphenazine – a phenothiazine

derivative – would accumulate in corneal tissues to a significant degree.

W J POWER  
S P TRAVERS  
D J MOONEY  
Royal Victoria Eye and Ear Hospital,  
Dublin 2,  
Ireland

1 Potts AM. The concentration of phenothiazines in the eye of experimental animals. *Invest Ophthalmol* 1962; 1: 522-30.

## BOOK REVIEWS

**Vascular Disorders of the Ocular Fundus.** By Rodney Grey. Pp 118. £47.50. Butterworth: London, 1990.

The purpose of this book is to demonstrate in colour the photographic appearances of a variety of retinal conditions not all, it has to be admitted, strictly 'vascular' in origin although, in the retina, vessels of some sort are rarely far away.

The book is a great success. After preliminary general observations on normal anatomy and pathology, methods of examination, principally fluorescence angiography, and the effects of treatment with photocoagulation, the book then covers each condition separately.

A fairly brief but very much to the point description is accompanied by well chosen and beautifully reproduced illustrations. The writing is lucid and therefore a pleasure to read. Afficionados of retinal disease might perhaps question some parts in detail but the average general ophthalmologist, and certainly all post-graduate students, will find the simplicity and clarity of the text most enlightening.

It is traditional to find a few faults. There are a few minor proof reading errors, such as the rather jolly mis-spelling of Dr Dollery's name on pp 6, 12 and 18 and possibly a transposition of two photographs on p 66.

In summary this book is highly recommended.

REDMOND SMITH

**Angle-Closure Glaucoma.** By Stanley Hyams. Pp 186. Dfl 90.00. Kugler: Amsterdam, 1990.

This small book covers the subject of angle-closure glaucoma in an original and informative manner with special attention paid to the bibliography on which the current understanding of angle-closure glaucoma is based. The major difference between this book and standard texts on the subject is that each chapter is composed of approximately equal portions of text and the author's own abstracts of the papers from which this knowledge has been drawn. This original style of presentation will appeal more to the reader with a specific interest in angle-closure glaucoma than perhaps an ophthalmologist in training who wishes to gain a rapid and easily remembered understanding of the subject. However, this style does allow the reader to cover a very wide range of references quickly without a visit to the library, and makes very interesting reading. It is salutary to find out just how much of our knowledge and accepted teachings are based on small series of patients and case

reports – especially with regard to rarer conditions such as malignant glaucoma.

The book is subtitled 'A comprehensive review of primary and secondary angle-closure glaucoma' and certainly the interested reader will find much useful information which does not appear in standard texts, for example the chapters on 'Prevalence' and 'Biometrics.' Most chapter headings are enlivened with relevant quotations from historical writings which show the astuteness and common sense of our predecessors. The author helps to clarify the nomenclature and hence classification of glaucomas associated with narrow and closed angles, and should be applauded for his efforts as accuracy in definition is of such importance. His message on another confused area, that of the role of provocative tests was not quite so clear, however, and the reader is given a rather ambivalent message about their use. In discussing laser iridotomy the author should have made a clear distinction between argon and Nd:YAG laser iridotomy as the reader otherwise gains the impression that the complications attributed to 'laser iridotomy' are equally common with both lasers.

The lack of illustrations, clinical photographs and diagrams, makes this book appear rather stark and this will detract from its appeal, as the modern reader has come to expect the understanding and reinforcement of ideas that good illustrations give to a text's message. However, the readability of this book and its important content make it a useful addition to an ophthalmic library.

PETER K WISHART

## OBITUARY

**SATISH KUMAR BHARGAVA,**  
MB, BS, DO, FRCSE, FCOphth

Satish Bhargava was born in Lahore in 1939 but moved to Delhi with his family in 1947 on Partition. He was one of the first intake of students at the All India Institute of Medical Sciences from which he qualified in 1962. After an internship there he came to England to take up a casualty officer post at Lister Hospital, Hitchin, where he met his future wife.

He started training in ophthalmology at the West of England Eye Infirmary, Exeter in 1963, continued at the Glasgow Eye Infirmary in 1965, and returned to Exeter as Registrar in 1968. He became senior registrar to the professorial unit at Manchester Royal Eye Hospital in 1971 where he became interested in retinal pathophysiology.

On appointment to the consultant staff there in 1975 he developed an electrophysiological diagnostic service and a referral clinic for the management of inherited retinal disorders. Both on his own and in collaboration with the Department of Optometry and Vision Science at the University of Manchester Institute of Science and Technology he was responsible for a steady stream of publications in this field, as well as on colour vision and toxic amblyopia.

In addition to running a very busy unit at MREH, where he was chairman of the medical committee twice (1981-3 and 1987-9), he also developed a close relationship with the Manchester department and School of Orthoptics, of which he was medical director from 1986-9. He frequently examined for the Orthoptic