Infrared fundus angiography

To the Editor of the British Journal of Ophthalmology

Sir,—An article by Brown and Strong (1973) on infrared fundus angiography was of great interest to us, as we have been working on this same problem since 1971.

Since 1960, much has been done with ICG dye to allay fears of using it for clinical fundus angiography. It has, for example, been administered by constant intravenous infusion over a 3-hr period in doses as high as 50 mg./kg. (Leevy, Bender, Silverberg, and Naylor, 1963) and in hepatic blood flow studies requiring intravenous infusion of 0·5 mg./min. for 70-min. periods (Sherlock, 1968). Also, ICG has been in use throughout the United States with U.S. Food and Drug Administration approval for the past 5 years for the determination of hepatic function by intravenous injection of single-bolus 0·5 mg./kg. doses. These examples alone suggest the safety with which the amounts of ICG required for fundus angiography may be administered. In our experience to date, volumes of less than 2 ml. containing 20 mg./ml. have been demonstrated to be sufficient for fundus angiography—this is not intended to imply, however, that greater dye concentrations may not ultimately prove to be of value in choroidal angiography. Moreover, it should be pointed out that the clinical history of ICG is devoid of any untoward side-effects, including moderate-to-marked nausea and headache, gastrointestinal distress, urticaria, and symptoms and signs of hypersensitivity—all of which have been associated with intravenous fluorescein administration.

The authors further suggest that fluorescein’s “long record of safety in intravenous use [makes it] difficult to promote any alternative form of fundus angiography unless it has a real advantage over fluorescein and is of comparable safety”. It seems to us that ICG has been demonstrated to be of comparable safety, although we would not recommend its use as an alternative to fluorescein. Fluorescein shows up the retinal vessels far better than ICG; however, ICG demonstrates the choroidal vessels whereas fluorescein cannot. We would hope that ICG infrared angiography will continue to be pursued as a potential clinical method of choroidal angiography.

Yours faithfully,

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References


Book reviews


A leading neuro-pathologist, the world’s most experienced clinical neuro-ophthalmologist, and a young energetic neuro-ophthalmologist with an interest in pathology have devoted their expertise to the compilation of this Atlas.
Intended as an aid to topical and differential diagnosis, this book is seen as a supplement to other major clinical text-books. The organization is therefore into anatomical sub-sections rather than disease processes, and progresses from the optic disc to the calcarine cortex. The major part of the book is devoted to the optic disc, the optic nerve, and the chiasmal region where a unique amount of material and pathological information is accumulated. The photographs of pathological sections have been painstakingly prepared, though the accompanying commentary could have been presented in a more readable way. This does not detract from the content, which is superb. Typical cases are described with numerous pertinent references to the literature. Historical vignettes, such as the autopsy findings on Abraham Lincoln, fundus photographs, and diagrams further enhance the value of this volume.

This book fulfils a most important role, contributes a fund of knowledge to those concerned with disorders of the visual system, and is strongly recommended.

M. D. Sanders


This symposium seems thinner in substance than its predecessors. The three major sins in neuro-ophthalmology according to Lawton Smith are insufficient history, failure to order x-ray examinations or to interpret them correctly, and errors or omissions in plotting visual fields. Layman describes an association of optic nerve hypoplasia and aniridia in 9 cases. Lubow revisits optic disc oedema, Lessell the toxic and deficiency optic neuropathies, and Burde ischaemic optic neuropathy. Page describes a series of developmental tumours about the optic chiasm and Streletz presents a case of trans-sphenoidal encephalocele. Harcourt recounts the battered-child syndrome as met in the U.K. Dell 'Osso shows what can be done with prisms to help the sufferer from congenital nystagmus. Donaghy gives his experience of micro-vascular techniques which present problems similar to those met by the ophthalmologist. There follows a series of free papers—the two most interesting concern defective saccadic eye movements in Wilson’s disease by Kirkham and myoclonic encephalopathy associated with neuro-blastoma by Senlick. The discussions on the free papers are unedited and some barely merit publication.

S. J. H. Miller


The first edition of Dr. Hartstein’s book was published in 1968, and this second edition is proof that it was found useful.

The question-and-answer presentation can be very helpful to both reader and writer. In many text-books both questions and answers are in considerable doubt. Dr. Hartstein says that the purposes of his book are to give the beginner in contact-lens practice a step-by-step procedure he can follow and to provide essential information in a concise and readily available manner. He succeeds very well in providing accurate information for the experienced practitioner, but I think the beginner might have been helped in his learning by a better order of chapters. For example, basic fitting techniques are described in chapter 16, while the fitting of keratoconus is dealt with in chapter 9.

The author deals with many aspects of the production, fitting, modification, and after-care of contact lenses big and small, hard and soft. A very useful chapter on haptic lenses is included,