LETTERS TO THE EDITOR

Acute angle-closure glaucoma following botulinum toxin

Sir,—I would like to point out the great significance of the case report published by P Corridan et al. They describe a patient who developed an acute angle-closure attack as a rare complication of periorcular botulinum toxin (BoTx) for blepharospasm. As reported the peripheral effects of BoTx, it was Carl Kuper who first reported that retrobulbar injection of BoTx in rabbits produces mydriasis, probably by affecting the ciliary ganglion. However, very high doses were used in his study, and in order to prevent lethal complications anti-BoTx antibodies were injected into all the animals. In contrast to the lethal doses used by Kupfer, we injected non-lethal doses of BoTx into the right orbit of rats (between 0.05—5 mg BoTx). All animals developed ipsilateral mydriasis with cholinomimetic supersensitivity, without apparent optic nerve dysfunction. The mydriasis disappeared spontaneously over a period of eight weeks, and pupillary supersensitivity remained for longer. No electrophysiological evidence of generalised neuromuscular dysfunction followed the injected doses of 1—5—2.5 mg BoTx, which are close to those used in humans (0.25—6.5 units). Our conclusion is similar to that of Dr Kuper's, and we are also of the opinion that BoTx injected periorcularly or retrobulbarly diffuses towards the ciliary ganglion and thereby impedes the cholinergic interposition of the pupil.

This case report highlights a serious complication of periorcular BoTx injection, which, though rare, should be taken into consideration in cases where injection of very narrow angles who undergo this procedure.

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Acute angle-closure glaucoma following botulinum toxin injection for blepharospasm


Len biometry and diabetes

Sir,—In a study based on Scheimpflug photo evaluation of anterior segment structures early-onset diabetics have been compared with a control group. Plots and regression lines are presented with biometry data as the dependent variable and age on the abscissa. Diabetics have thicker lenses (for age) than non-diabetics, a trend that is more apparent the longer the duration of the diabetes.

The authors state that this is the first report in which a precise assessment of the effect of ‘true’ diabetic duration on lens biometry has been possible. However, as part of a series of studies with focus on diabetic myopia we published a similar finding in 1987. Compared to the present analysis our set-up was small-scale and with less detail regarding lens biometry. Our material was composed mainly of early-onset diabetics. A few type 2 diabetics with clinically documented diabetes onset were included. Suggesting a hypothesis being the duration of the metabolic disorder proper, and not the insulin medication as focused on by Sparrow et al.

Whatever the mechanism, the two studies both support the concept of positive correlation between lens thickness and diabetes duration.

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Sir.—In our study of lens biometry in early-onset diabetes one of our objectives was to provide a precise statement concerning the effects on the lens of ‘true’ diabetic duration. Information on disease duration of ‘late-onset’ diabetes is frequently inaccurate, and for this reason a strict definition of ‘early-onset’ diabetes was applied in our study. Our information on ‘true’ diabetic duration was therefore reasonably precise.

Among the early-onset diabetics we found that for all but one of the lens biometric features measured, age and diabetic duration were the most important determinants of lens biometry. In our multiple regression analysis we fixed the age effect in the diabetic group to that of the non-diabetic control group prior to fitting the duration regression term. The slope of our duration term therefore represents the additional effect of diabetic duration over and above the normal aging effect. Our methods thus provide the most precise estimate available of the effect of ‘true’ diabetic duration on lens biometry.

Fledelius et al take issue with our statement that ‘this report is the first in which a precise assessment of the effect of ‘true’ diabetic duration on lens biometry has been possible.’ In their paper, however, they provide no information regarding the diabetic type of the patients included in their study. The reader is therefore left ignorant as to whether the ‘true’ diabetic duration of their patients was known. It is apparent only from their present communication that the patients were mostly early-onset diabetics, with a few type 2 diabetics included.

Fledelius et al employed a statistical method which demonstrated an effect of diabetic duration. Their method did not provide ‘a precise assessment of the effect of ‘true’ diabetic duration on lens biometry.’ In their method they calculated: ‘individual lens thickness deviation values (in %), with + or — to signify higher or lower than expected according to non-diabetic regression line values for actual age and sex.’ Using these calculated ‘percentage deviation values’ they then performed a second regression analysis against diabetic duration. Their method is acceptable for determining whether there is a duration effect or not, but it certainly has not provided ‘a precise assessment of the effect of diabetic duration.’ In fact, the regression coefficients quoted in their paper is a rather meaningless statistic, and does not provide the reader with any sort of useful estimate of the impact per year of diabetic duration on lens thickness. (Their reason for using a ‘percentage deviation value’ is unclear, as this would have the effect of distorting the magnitude of their duration effect, and implies an a priori belief that the impact of diabetic duration varies with the size of the lens.)

Our statement therefore is defensible, firstly, because no information regarding type of diabetes was provided by Fledelius et al in their paper, and, secondly, because the
Hold-up of fluorescein in the arm

Str.-A potentially common cause of early arterial phase fluorescein angiographic delay is reported. A fit 36-year-old draughtsman with unilateral paracentral visual distortion of six months' duration and bilateral macular pigment epithelial changes was investigated by fluorescein angiography. 5 ml of 20% sodium fluorescein was injected by 21 gauge 'butterfly' into a dorsal hand vein, followed by 4 ml wash-through of 0.9% saline. No dye appeared in the retinal arterioles. The injected ('upper') arm, resting on the fundus camera handlebar (fore-arm pramoted), became uncomfortable above the elbow mediially. This eased on lifting the limb. Fluorescein entered the retinal vessels 10 seconds thereafter (arm-retina circulation time1), 117 seconds after initial intravenous injection. The delay was caused by the tourniquet effect of the camera handlebar.

The dorsal veins of the hand drain medially into the basilic vein and laterally into the cephalic vein, which may drain almost entirely into the basilic by a median vein in the cubital fossa. Pressure on the medial upper arm in such individuals will slow venous drainage from the limb - not so if the proximal cephalic vein is larger.

In this patient the bolus effect was reduced, making identification of treatable leaking spots more difficult in the early phase angiograms. Upper limb position and support (previously described for antecubital injection2) must be considered during fluorescein angiography.

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BOOK REVIEWS


This slim book was written for general practitioners. It is the second in a series co-authored by Dr Daily (the other covering neurology) and a very good buy at £5.95. Mr Kanski is well known for his books on many aspects of ophthalmology and not only writes very easily read text and high standards of production.

The text is set out as questions which are then answered in language which general practitioners will understand. The authors cover all common conditions such as senile macular degeneration, glaucoma, and cataract. In addition there are useful sections on less obvious topics such as visual standards and blind registration. There is a two-page display at the end entitled 'When to refer and to whom.' This sets out the rapidity of referral indicated for various conditions. The text is well set out on the pages, easily read, and impressively free of spelling mistakes. Illustrations are used sparingly but effectively.

The ophthalmic content is of a high standard. The text represents a distillation of modern views on clinical management of ophthalmic problems. There are a few points which ophthalmologists might be interested to discuss among themselves. For example, the reader is advised to remove a metal foreign body from the cornea in the surgery and clear the rust ring. Some may consider this unnecessary.

Surgical intervention in the slit-lamp. General practice elements are well covered - for example, the relationship between timolol and asthma, and the need for ophthalmologists to visualise senile macular changes before advising whether cataract surgery would be helpful. The index was particularly helpful in tracking items down.

This book really succeeds in two areas. First, it is short. This should encourage the potential reader to pick it up. The whole book could be read in 10 minutes a day over seven days. Second, it offers solutions to problems general practitioners face during their daily work and is therefore much more user friendly than a short textbook. The answers to clinical problems are given at a level which should not frighten anyone. A general practitioner who has struggled with conventional texts would probably find a few minutes with this book most enlightening.

In conclusion we strongly recommend it for general practitioners.

JOHN BRAZIER
ROY MACGREGOR


I am glad to welcome the latest edition of this classic textbook, the previous third edition, having been published in 1985. Some changes have inevitably taken place. The title is no longer 'Burian and von Noorden's '...' , it is now entirely under the name of Professor von Noorden, but to make up for this there is a new picture of Dr Burian on the inside of the book, whereas previously we just had his name.

The third edition had 500 pages and 498 illustrations and the fourth edition has 557 pages with 504 illustrations. The main changes are that the chapter on neuroanatomy has been dropped, as the author feels that it is now impossible to give an adequate discussion of this subject in this book. He refers us very properly to Miller's edition of Walsh and Hoyt's textbook. To counterbalance this the chapter on sensory signs, symptoms, and adaptions has been substantially increased from 72 to 85 pages, and this is a considerable benefit, as many textbooks do not go into as much detail in this area. In addition Professor von Noorden's recent interest in nystagmus is clearly reflected in the much enlarged section in the newer textbook.

I am glad to notice that Professor von Noorden now regards botulinum toxin injection as an adequate method of treatment of certain conditions, though he still seems to have his doubts as to its general applicability.

The surgical section has been reorganised, with new illustrations drawn by Rudolph Branner. I have to confess a preference for the old illustrations. Of course, in my view, this is too detailed and tends to have become much busier with many more pictures. For instance, in the previous edition it was possible to illustrate a rectus muscle resection in six pictures, though many of us would think that fewer would be adequate. The sequence now runs to 15 pictures, including pictures of the conjunctiva being sewn up. This seems to me an overabundance of visual material. Similar objections could be raised to all the other sections of the surgical section of the book, and this is, I think, a retrograde step, though perhaps in North America it is of great value to show everything in a step-by-step fashion for the occasional third year student.

I am glad to notice that the index now refers to anomalous correspondence and not anomalous retinal correspondence but puzzled as to why there are two page references to 'alerters' in the surgical section. Perhaps these are devices for turning aeroplanes around, and I can find no actual reference to the word on the page to which we are referred.

In conclusion, however, I would emphasise that this is still in my view the very best single textbook on ocular motility and strabismus and that the chapter modifications are very much to its advantage. With the few quibbles about illustrations, this is yet again the book to be recommended to all persons with an interest in this area.

JOHN LEE


The ophthalmic subspecialties have given birth to a pantheon of learned texts, each filling a niche in the perceived requirements of the reading public. Some appear as atlases, others as multi-authored tomes held together by the editor, while others appear as the result of superhuman endeavour by a single author aiming to stamp his own personality on to his chosen field. Each of these titles, by claiming for itself the common core of the subspecialty, embellished according to the author's perception of the niche to be filled. It is this core that Kanski and McAllister have captured.

In this slim volume, written in a clarity of style which the senior author has made his own, is summarised with admirable simplicity the whole of the subspecialty. Each chapter is well illustrated, with note form presentation of information and clinical pearls boxed for extra emphasis. A short bibliography for further reading is available for the curious. The book forms an admirable launch pad for the tyro and a worthwhile text for the paramedic. It is a text which any practitioner in the field would be proud to have produced but few could have achieved.