

LETTERS TO THE EDITOR

Local anaesthesia without retrobulbar injection

SIR,—I refer to the two papers on local anaesthesia without retrobulbar injection.^{1,2} I have been using a similar technique since 1985 and have presented a paper entitled 'Alternative to retrobulbar anaesthesia' at the 1986 Malaysia-Singapore Ophthalmic Conference, and recently another paper entitled 'Transconjunctival peribulbar anaesthesia - 1200 cases' at the XXVI International Congress of Ophthalmology held in Singapore in March 1990.

I agree that the transconjunctival method is safer than the percutaneous methods of local anaesthesia (retrobulbar or peribulbar). As you had pointed out in the papers referred to, the analgesia achieved by local infiltration is just as good, if not better than, with retrobulbar injection. It is certainly better than that achieved with the percutaneous peribulbar techniques that require about 10 ml of anaesthetic. However, the akinesia achieved is not so good. This is not a problem, as residual movement is in the horizontal plane and not very extensive.

The other problem, which is not mentioned in these papers, is the chemosis caused by the subconjunctival injection. It makes insertion of the superior rectus suture and the corneoscleral or limbal section difficult. These problems can be overcome by inserting the superior rectus suture first, before the subconjunctival injection. This is painless if amethocaine eyedrops have been instilled beforehand. The superior rectus suture is then used to draw the globe downwards for proper placement of the anaesthetic injection, which, as is stated in the papers, should be 7 mm behind the limbus. If the superior rectus suture is not used to draw the globe downwards, the tendency is to place the injection too anteriorly with cumbersome chemosis to deal with. (Some patients do not look downwards far enough, particularly Asian patients, who have small palpebral fissures).

Injecting some local anaesthetic (0.5 ml) into the lower fornix improves akinesia and allows for the painless injection of drugs, such as antibiotics and steroids, postoperatively.

I have stopped using retrobulbar anaesthesia for the past five years, and it is a wonderfully rewarding feeling to know that the patient I am injecting will not have retrobulbar haemorrhage or worse complications associated with retrobulbar injections.

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1 Redmond RM, Dallas NL. Extracapsular cataract extraction under local anaesthesia without retrobulbar injection. *Br J Ophthalmol* 1990; 74: 203-4.

2 Smith R. Cataract extraction without retrobulbar anaesthetic injection. *Br J Ophthalmol* 1990; 74: 205-7.

SIR,—I read Dr Khoo's letter with great interest and agree with many of his comments. He does not mention whether hyaluronidase is a component of the anesthetic solution that he uses. Without this, bulky conjunctival swelling can be a hindrance.

Furuta *et al.*¹ have recently published their experience of subconjunctival anaesthesia in cataract surgery. It is apparent that there is a proliferation of different terms to describe essentially the same technique: subconjunctival, subtenon's, peribulbar, transconjunctival peribulbar, limbal, etc. I favour the first term, as techniques such as subconjunctival injection of antibiotic are analogous. In my view, the most essential aspect of this technique is to establish adequate lid paralysis before opening the eye.

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1 Furuta M, Toriumi T, Kashiwagi K, Satoh S. Limbal anaesthesia for cataract surgery. *Ophthalmic Surg* 1990; 21: 22-5.

* I also read Dr Khoo's letter with interest. It is true that the injection chemosis sometimes interferes with the superior rectus suture, but usually not. Occasionally I have had to open the conjunctiva first - and identify the rectus tendon direct. I have not tried putting in the suture first as I believed this would be too painful. - ED., *BJO*.

Local anaesthesia for cataract surgery

SIR,—In response to Mr Steele's editorial (*BJO* April, 1990, p 195) regarding anaesthetic techniques for cataract surgery, 566 day care ophthalmic operations were performed at this hospital between February 1987 and December 1989, the majority being cataract extractions with lens implantation in elderly patients. 31% (176) were performed under general anaesthesia. Complications of general anaesthesia were one chest infection and one episode of urinary retention. The latter patient

was readmitted on the afternoon of surgery and subsequently underwent resection of a malignant prostate. Complications of local anaesthesia included four retrobulbar haemorrhages and one intrathecal/intra-arterial injection of bupivacaine 0.5%.

We have recently completed a randomised prospective study of cognitive function in elderly patients undergoing cataract extraction under local or general anaesthesia. At one and three months after surgery there was no difference between the local and general anaesthesia groups.

It would appear that modern general anaesthetic techniques are such that patients, ophthalmic surgeons, and anaesthetists may safely choose any combination of inpatient or outpatient surgery under general or local anaesthesia.

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Trial frame for children

SIR,—It is not easy to find a comfortable trial frame for children under the age of 5. The commercial ones available are usually too big. The head band design is often frightening to a child. Similarly, loose lenses or a retinoscopy rack are unsuitable for the objective assessment of astigmatism.

I have found the use of NHS frame C525 with plain plastic lenses and Halberg clips useful (Fig 1). A comparable current frame is Merx PS80. It is fairly easy to align the 90° axis vertically, though inadvertent rotation is of course possible. There are two cells available for spherical and/or cylindrical lenses.

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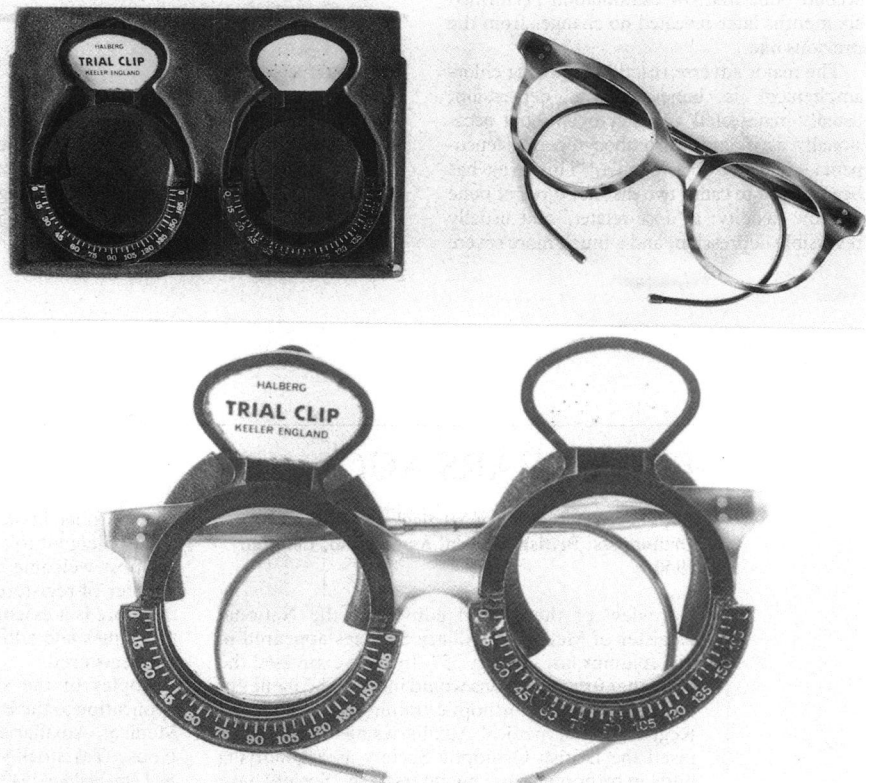


Figure 1: Halberg clips on a child's frame fitted with plano plastic lenses.