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Sir,

Testing for Anaesthesia Following Peribulbar Block

We describe a test which determines whether or not an eye is anaesthetic following a peribulbar block. It is equally applicable to a retrobulbar block. Ideally ocular akinesia should be present for surgery, but since this may require a greater volume of local anaesthetic, some degree of eye movement might be traded off against the disadvantage of a tense orbit. An anaesthetic eye, however, is an absolute necessity for local anaesthetic surgery.

Following administration of a peribulbar block a drop of amethocaine is placed on the cornea of the treated eye. If the patient experiences a stinging sensation or there is excessive blinking, the amethocaine test is said to be positive and a further injection of the anaesthetic solution is given. If the test is negative, i.e. the patient denies any sensation of stinging and the eyelids remain motionless, then no further injection is necessary.

A masked prospective trial of the test was carried out (Table I). Twenty patients were allocated to each group. A peribulbar block was administered using a 6 ml mixture of 2% lignocaine and a 6 ml mixture of 0.5% marcaine. Twelve minutes following the injection, a nurse administered a drop of either amethocaine or saline to the eye in a double-masked randomised fashion (i.e. the surgeon was not aware of which patient received which of the preparations). In stage 1 the patient was asked to indicate whether there was stinging or no stinging. If the patient indicated stinging it was concluded that the anaesthesia was insufficient and a further 3 ml bolus of the anaesthetic mixture was given. This was followed by stage 2 where the surgeon grasped the conjunctiva with Lister forceps and the patient indicated pain or no pain. The results are listed in Table II.

It is concluded that the amethocaine test is an effective test, as no patients in group 2 experienced pain in stage 2, in contrast to group 1, where some did. It helps prevent further anaesthetic injection where not necessary, thus avoiding the further risk of globe perforation or peribulbar haemorrhage.

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Table I. Trial design

Group 1 given g. saline	sufficient anaesthesia	no stinging	no pain
	insufficient anaesthesia	no stinging	pain
Group 2 given g. amethocaine	sufficient anaesthesia	no stinging	no pain

Table II. Results

Group 1 20 patients	sufficient anaesthesia	14 indicated no stinging	14 indicated no pain
	insufficient anaesthesia	6 indicated no stinging	6 indicated pain
Group 2 20 patients	sufficient anaesthesia	16 indicated no stinging	16 indicated no pain
	insufficient anaesthesia	4 indicated stinging therefore given further bolus	4 indicated no pain