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References

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Sir,

I was interested to read the study by I. G. M. Duguid *et al.*¹ on topical anaesthesia for phacoemulsification surgery in a recent issue of *Eye*. I have completed a similar survey, with results which support this study.

Thirty patients underwent phacoemulsification using topical anaesthesia only. The surgery involved a 3 mm clear corneal incision with no bridle sutures and the insertion of a foldable lens. The anaesthetic was given by soaking a collagen contact lens in 4% lignocaine and applying this to the eye 1 hour before surgery. This was topped up with additional drops whilst the surgeon was scrubbing up.

Pain scores in these patients were compared with those in 30 age- and sex-matched patients undergoing phacoemulsification using a peribulbar block. The surgery involved a superior rectus bridle suture, a 6 mm clear corneal incision and the insertion of a non-foldable lens and sutures; otherwise the operative procedures were the same. The peribulbar anaesthetic consisted of an 80:20 mixture of 0.5% bupivacaine, 4% lignocaine and hyaluronidase given by inferior-temporal and superior-nasal injection.

The patients' perception of pain was assessed three times, at the time the pain was being experienced, on a 0-10 scale. This was done at administration of the anaesthetic, peri-operatively (first incision) and 3-6 hours post-operatively. The groups were compared using the Wilcoxon matched pairs sign-rank test. The results are shown in Table I.

None of the patients said the pain they experienced at any time during either of the procedures was unacceptable. In addition there was no difference between the two groups in analgesia requested post-operatively, and the lack of ocular akinesia was not a problem for the surgeon during any of the operations in this study. The lignocaine-soaked contact lens was

Table I. A comparison of the mean pain scores with peribulbar and topical anaesthesia

Mean pain scores (0-10)	Topical anaesthesia	Peribulbar anaesthesia	Wilcoxon
			two-tailed <i>p</i> value
Anaesthetic administration	0.59	1.79	0.003
Peri-operatively	0.90	0.27	0.03
3-6 hours post-operatively	1.97	1.02	0.27

inserted 23-83 minutes before the operation commenced. There was no significant correlation between the time the contact lens was in place and perioperative pain experienced by the patient.

These results support the use of topical anaesthesia for phacoemulsification. The topical anaesthetic appears to be more comfortable to administer (difference in means 1.2) and patients experience only marginally more discomfort during the operation (difference in means 0.63).

As Duguid *et al.*¹ suggest, topical anaesthesia has a lower rate of complications, allows a quick turn around of patients and is cheaper. They also suggest that the unanaesthetised iris may be sensitive if touched. However, Fischman² reports that 'Sphincterotomies may be routinely performed in eyes with small bound down pupils. The patient generally experiences no discomfort from this. Likewise, during trabeculectomies, the peripheral iridectomy ... seems to cause no patient discomfort.'

The arguments in favour of topical anaesthesia during phacoemulsification are increasing.

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I read the letter on valsalva haemorrhagic retinopathy in a pregnant woman by D. Callender, Z. A.Y. Beirouty and S. N. Saba (*Eye* 1995;9:808-9). They simply observed the preretinal haemorrhage of the macular area nearly every 2 weeks until resolved. The more appropriate treatment for such a case will be drainage of the subhyaloid haemorrhage by means of membranotomy using Nd:YAG laser. This will drain haemorrhage and quickly lead to full visual rehabilitation. I have been employing this mode of treatment for the past several years with success. This will also reduce complications such as epiretinal membrane formation. I am pleased to note that they did not encounter retinal complication on this occasion.

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