

In our experience local anaesthesia (LA) is effective in patients with endophthalmitis, trauma and dropped nuclei. Over the last 24 months we operated on 20 of 26 (76%) cases of dropped nuclei and 16 of 22 (72%) cases of endophthalmitis under LA and now routinely use LA in all such cases except when the patient expresses a preference for general anaesthetic or when there is a contraindication for LA. In our paper we have reported no occurrence of orbital haemorrhage in 100 consecutive cases.

We are fully aware that peribulbar injections do not obtund the oculocardiac reflex (OCR), as we have published on this subject.² This reflex, however, is more effectively suppressed with accurate intraconal injections.³ All our patients under LA had full cardiac monitoring with ECG and pulse oximetry. An anaesthetist was available, in accordance with the guidelines in the 'Report of the Joint Working Party on Anaesthesia in Ophthalmic Surgery'.⁴ The OCR is of course a common occurrence with general anaesthesia unless it is suppressed by atropine or glycopyrrolate. The undesirability of the routine use of these drugs in general anaesthesia is acknowledged and discussed in our previous paper.² Happily, in our experience of LA over the last 3 years there was no incidence of OCR nor was there the necessity for use of any of these anticholinergic agents by the anaesthetist.

In the introduction to our paper we pointed out that many surgeons are dissuaded from using LA for the fear of stress it may induce. Surely our correspondents would agree a more directed approach to surgery is desirable and we have shown that using LA the surgical outcomes and complications were the same. We predict a steady change in clinical practice by surgeons increasingly adopting LA in future.

References

1. Rao GP, Wong D, Groenewald C, McGalliard JN, Jones A, Ridges PJ. Local anaesthesia for vitreoretinal surgery: a case-control study of 200 cases. *Eye* 1998;12:407-11.
2. Batterbury M, Wong D, Williams R, Kelly J, Mostafa SM. Peribulbar anaesthesia: failure to abolish the oculocardiac reflex. *Eye* 1992;6:293-5.
3. Defalque RJ. Retrobulbar block for oculocardiac reflex: duration of protection by common local anaesthetics. *Acta Ophthalmol* 1969;47:998-1003.
4. Report of the Joint Working Party on Anaesthesia in Ophthalmic Surgery: Royal College of Anaesthetists and College of Ophthalmologists. London: March, 1993.

G.P. Rao ✉
D. Wong
J.N. McGalliard
C. Groenewald
St Paul's Eye Unit
Royal Liverpool University Hospital
Prescot Road
Liverpool L7 8XP, UK
Fax: +44 (0)151 706 5861

Sir,

We read with interest the study by Beigi *et al.* on the effect of intracameral, per-operative antibiotics on microbial contamination of anterior chamber (AC) aspirates during phacoemulsification.¹ The statement concluding that there was a 7-fold reduction in bacterial contamination of the AC is misleading as we have strong reservations about the methodology, which is flawed from at least two aspects.

The paper states that at the end of each operation list the AC aspirates were sent for microbiological studies. There is no indication as to the time delay before eventual inoculation of these samples onto plates. The effect, then, is that bacteria left within the cassettes and sterile specimen bottles would experience long periods of exposure to antibiotics prior to eventual culture. The paper failed to address key pharmacokinetic issues. The half-life of antibiotics within the AC would differ from that retrieved from the phaco aspiration cassette. The aqueous humour half-lives of common drugs used in ophthalmology are between 0.6 and 3.0 h, based on studies in rabbits (1.9 h for gentamicin). As far as we know, human data are not available for either gentamicin or vancomycin.² Our feeling is that a more accurate *in vivo* specimen would have been achieved if aqueous samples had been recovered directly from the AC once the operation had ended, and cultured immediately.

We also contest the statement that subconjunctival antibiotics have no impact on post-operative inflammation and infection. The referenced study in question³ was of a small size, and specifically did not draw any conclusions as to the rate of post-operative infection. We believe that this remains an unresolved question.

One other issue of concern is the use of vancomycin in the study as a prophylactic antibiotic. We feel strongly that this is an inappropriate use of such a narrow spectrum antibiotic, which has an important role in the treatment of methicillin-resistant *Staphylococcus aureus* (MRSA) infections and is one of only a few antibiotics left that still has activity against this organism. Widespread prophylactic use of

vancomycin could result in the evolution of potentially super-resistant bacteria.

References

1. Beigi B, *et al.* The effect of intracameral, per-operative antibiotics on microbial contamination of anterior chamber aspirates during phacoemulsification. *Eye* 1998;12:390-4.
2. Scheonwald RD. Ocular pharmacokinetics/pharmacodynamics. In: Mitra AK, editor. Ophthalmic drug delivery systems. New York: Marcel Dekker, 1993.
3. Sanders R, *et al.* A comparison of prophylactic, topical and subconjunctival treatment in cataract surgery. *Eye* 1992;6:105-10.

Nicholas Jon Sargent ✉
Tina T.L. Wong
Evelyn Mensah
Jeremy Joseph

Central Eye Services
Central Middlesex Hospital
Acton Lane
Park Royal
Middlesex NW10 7NS, UK

Tel: +44 (0)181 453 2528
Fax: +44 (0)181 453 2404

Sir,

We thank Dr N.J. Sargent and colleagues for their interest in our paper.

We disagree that the methodology of our study is flawed. We are unable to comment as to the *exact* timing of when the specimens were plated. However, they were processed without delay at the end of the list and the exposure time to the antibiotics was comparable to the *in vivo* 2-3 h half-life of intracameral antibiotics. To have plated the specimens immediately in theatre would possibly have biased the study by shortening the exposure time of the specimens to the antibiotics as well as creating logistical problems for their transport and the preparation of enrichment cultures. The procedures employed certainly did not lead to 'long periods of exposure to antibiotics prior to eventual culture'.

Sargent *et al.* would have been more logical to suggest that we collected the specimens via an anterior chamber paracentesis 2-3 h after the completion of surgery, having first prepared the eye with 5% povidone iodine solution. Apart from being impractical, the very small specimens obtained would have precluded the use of enrichment cultures. Such a study design may also not have enjoyed the ready cooperation of 220 patients or ethics committee approval. The method we used was in