Sir,

We are pleased to note that Eke and Thompson (in The National Survey of Local Anaesthesia for Ocular Surgery)[1,2] agree with our reservations on the methodology of the survey expressed earlier,[3] particularly the lack of any standardised definition of method of local anaesthesia (LA) and flawed planning of the two phases of the survey. This has led to significant underreporting of the more serious adverse events. Although they have attempted to determine the extent to which the 1993 Safety Guidelines[4] have been followed, little attempt has been made to analyse the impact of adherence or otherwise to various guidelines on the incidence and outcomes of adverse events due to LA. The survey shows that the 'severe events' had not been predicted in individual cases. This strongly supports our view that 'routine' pre-operative investigations before LA are unnecessary, invoking cost and inconvenience without producing any demonstrable patient benefit. Logically, the College Guidelines ought to be altered to reflect this.

Their classification of the various types of local anaesthesia projects the impression that 'intracameral' and 'topical alone' techniques are by far more dangerous than the 'peribulbar' and 'retrobulbar' methods. This is contrary to popular belief and available evidence[5,6] and is not supported by close examination of the data. The estimated rates of incidence of 'severe' systemic adverse events for the 'intracameral' and 'topical alone' groups (217 and 5.4 per 10 000 respectively) are based on single reports each, among the small numbers of patients estimated to have received these methods of anaesthesia. On closer inspection it appears that the only serious adverse event of brief apnoea in the 'intracameral' group was almost certainly due to intravenous fentanyl/midazolam sedation in an ASA grade 4 patient rather than the intracameral agent. Similarly the isolated cardiovascular adverse event in the 'topical alone' group could have been due to the muscarinic agonist action of carbachol which the patient received 23 minutes after the procedure started. Though we agree that the design of the survey does not allow comparison between the safety of various LA techniques, this issue has not been adequately discussed.

We would like to return to our earlier point[3] which Eke and Thompson have failed to address. Assuming the adverse event data from the first week are accurate, then LA for ocular surgery as currently practised in the UK is an unsafe procedure. In the first week 3.6% of patients had either an 'orbital' (2.7%) or a 'systemic' (0.9%) adverse effect. This 3.6% risk makes LA the single highest risk in cataract surgery to the patient's health or sight, comparable to the risk of vitreous loss and higher than that of endophthalmitis.[7] It is our view that the National Survey of Local Anaesthesia for Ocular Surgery will be recognised as a landmark paper and will influence the practice of cataract surgery in this country for some time to come. In an era of clinical governance it is imperative that the results of this survey are understood by all involved. Given the results of the survey we fail to see how LA for cataract surgery can be beneficial to the patient or its continued use justified unless individual units can demonstrate from audit that their own figures of adverse events can better the Survey's results. For retrobulbar or peribulbar techniques to continue in ocular surgery, it will need to be shown that the risk to the patient's health or sight from adverse events is no higher than the risk posed by general anaesthesia or the other LA techniques. A further properly designed National Audit is needed and we look to the Royal College of Ophthalmologists to address this point.

References

1. Eke T, Thompson JR. The National Survey of Local Anaesthesia for Ocular Surgery. I. Survey methodology and current practice. Eye 1999;13:189–95.
2. Eke T, Thompson JR. The National Survey of Local Anaesthesia for Ocular Surgery. II. Safety profiles of local anaesthesia techniques. Eye 1999;13:196–204.
3. Kamath G, Prasad S, Clearkin L. Re: The National Survey of Local Anaesthesia for Ocular Surgery [correspondence]. Eye 1998;12:489.
4. Report of the Joint Working Party on Anaesthesia in Ophthalmic Surgery. London: Royal College of Anaesthetists and College of Ophthalmologists, March 1993.
5. Roman S, Auclin F, Ullern M. Topical versus peribulbar anaesthesia in cataract surgery. J Cataract Refract Surg 1996;22:1121–4.
6. Gills JP, Cherchio M, Raanan MG. Unpreserved lidocaine to control discomfort during cataract surgery using topical anesthesia. J Cataract Refract Surg 1997;23:545–50.
7. Powe NR, Schein OD, Geiser SC, *et al.* Synthesis of the literature on visual acuity and complications following cataract extraction with intraocular lens implantation. The Cataract Outcomes Research Team. Arch Ophthalmol 1994;112:239–52.

Girish G. Kamath ✉
Somdutt Prasad
Louis G. Clearkin
Department of Ophthalmology
Arrowe Park Hospital
Wirral
Merseyside L49 5PE, UK

Sir,

It is difficult to respond to the points made by Kamath, Prasad and Clearkin because of their use of so many rhetorical asides. To suggest that we agree that the Survey design was 'flawed' is either ridiculous or outrageous, depending on one's point of view. It is an elementary truth of clinical research that all designs have limitations. If an intelligent discussion of those limitations is to be characterised as an admission that the design is flawed, then such discussion will cease. The question is not whether the design has limitations, as every clinical study ever undertaken has its problems. Rather, the questions are: could the design have been improved upon, and does the study provide useful information? We are strongly of the opinion that the National Survey of Local Anaesthesia for Ocular Surgery used the best practicable design, and that it provides very useful data.

Ideally, we would have wished for full details of every local anaesthetic given in the whole country for 6–12 months, but it would have been totally unacceptable and even counterproductive for us to request this amount of data. The Survey design[1] was thus a compromise between what we wanted, and what we felt would be acceptable to our colleagues in eye theatres.

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