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Sir,
Expanding role of local anaesthesia in vitreoretinal surgery

We read with interest the paper by Costen *et al*,¹ regarding the expanding role of local anaesthesia (LA) in vitreoretinal (VR) surgery. The study involved 1003 patients undergoing VR surgery, of whom 920 (91.7%) had LA. They concluded that 'careful patient selection, together with the use of sedation when necessary, should ensure that the routine use of LA for VR surgery continues to become more acceptable to patients and medical staff alike'. Two of us have visited the Southampton Eye Unit and were very impressed with their VR service, but nevertheless we have some reservations about the conclusions of this study.

Every patient was under the care of a single consultant anaesthetist who works full time in ophthalmology. No doubt his considerable experience is responsible for the excellence of the blocks. However, this arrangement is impractical in many other hospitals. Anaesthetist staff may need to maintain skills in all areas of anaesthesia, if for no other reason than to carry out their on-call duties competently. Also, with less-experienced anaesthetist staff there will inevitably be a greater recourse to GA. Presumably all the LA surgery took place during routine surgical sessions. In other units when this is not possible, it would again increase the likelihood that a GA will be preferred.

The authors comment that 'in-patient beds are increasingly under pressure and hence general anaesthetic services are often stretched'. There is an implication here that the move to LA is in part driven by necessity rather than choice, and this may well be a factor in other units moving toward an increase in LA rates.

We note that top-up anaesthesia by sub-tenon's injection was required in 5% of cases overall, and

sedation was used in 20.2%. In this unit we have tended to avoid sedation because of concerns that the patient may not always be alert enough to cooperate fully during surgery.

We are puzzled by the inclusion of patients undergoing retinopathy without vitrectomy (group 2 'retinopathies with or without vitrectomy') GA would not normally be considered for such patients. Their inclusion perhaps lessens the impact of the headline LA rate.

There is no doubt that many patients are better served with LA vitrectomies than GA, especially insulin-dependent diabetics and those in poor general health. However, we do not necessarily see it as desirable to strive for the high LA rate that is advocated in this study. After all, a GA offers a painless alternative to the LA block, and recovery these days is quick enough to make it perfectly feasible for day case surgery.² The greater degree of relaxation in teaching juniors, the avoidance of needles in close proximity to the eye, and the ability to treat the fellow eye, are obvious additional advantages of a GA.

References

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Sir,
Reply to Gray *et al*

We note with interest the comments made in the letter from Gray *et al*, and thank the authors for their interest in our paper.

With reference to our use of anaesthetists, not all of our vitreoretinal cases have LA administered by one anaesthetist. The data we presented were indeed from one anaesthetist (ACW), but this does not represent our entire vitreoretinal workload. Other anaesthetists, both consultant and trainees, are assigned to the Eye theatres and as such have good exposure to ophthalmic anaesthesia.

In addition, much of our out of hours vitreoretinal work is also undertaken using LA, but these data are not included in this series. In cases where an untrained anaesthetist is present, the block is given by the surgeon and when no anaesthetist is available, sub-tenons anaesthesia is used.

With regard to our use of sedation, discussed in paragraph 4, we have not encountered any significant clinical difficulties or problems with patient cooperation and have found it to be extremely useful in some patients. We report high patient satisfaction rates in our paper¹ and in our opinion sedation is a useful adjunct in selected cases.

Ophthalmology is becoming an increasingly day-case oriented specialty. Many ophthalmic units face pressure over use of inpatient beds. While it is true that GA can be administered on a day-case basis, the absence of beds in which to recover patients adds pressure to the service and may result in elective cancellations. This is unfortunately a reality, and as such will of course be a factor driving a predominantly LA service. This apart, we find LA to be highly acceptable to both patients and staff alike.

Only 6% of patients (39/518) undergoing retinopexy (with or without vitrectomy) had GA.¹ This therefore has little effect on our reported LA rate, as suggested by Gray *et al*. Our previous work involved taking the opinion of the patient, who being recovered by the anaesthetist, had no preconceived surgical opinion on what does or does not hurt. We found that the laser and cryopexy were more important determinants of discomfort during vitrectomy than other aspects of the surgery, and so these were analysed as one group.² While we would agree with Gray *et al* that most retinopexy would not require GA, there are occasional anxious patients who have had failure of treatment at the slit-lamp, and for whom good

anaesthesia is as vital as it is in a vitrectomy for retinal detachment.

In response to the comments in paragraph 6, by Gray *et al*, regarding patient comfort and training issues, we would like to draw attention to the findings in our paper. We noted high patient satisfaction rates, both with the anaesthetic injection and the procedure. We had no cases of globe perforation. Teaching cataract surgery under LA is an experience we have all been through and the principles, when applied to VR surgery are just the same. We have an active vitreoretinal teaching program for both specialist registrars and fellows. We have found LA to be perfectly acceptable for teaching, as many of the procedures reported in our series were performed by trainees.

With regard to examination of the fellow eye, we would agree with Gray *et al* that LA does pose a disadvantage here. What is not known is on how many occasions fellow eye treatment is needed, and whether or not it could easily be administered as an outpatient, or indeed the acceptability of another LA for the patient.

References

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