

Needle local anaesthesia for cataract surgery: a chip off the old block?

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The face of ophthalmic anaesthesia has changed enormously over recent years. Most of us grey-haired ones remember our first brush with ophthalmic blocks, often with a certain amount of horror, knowing now what we did not know then about orbital anatomy. But thankfully, long needles easily capable of reaching the orbital apex and the practice of 'see one, do one, teach one' have receded into distant memory. Clinical governance and consultant appraisal should eliminate such unacceptable and dangerous practices. Our Royal Colleges define acceptable standards and promote good practice. The growth of ophthalmic anaesthesia workshops and organisations such as the British Ophthalmic Anaesthesia Society (BOAS) demonstrates the profession's willingness to teach and learn new and ever-safer techniques.

Eke and Thompson, under the auspices of the Royal College of Ophthalmologists, surveyed ophthalmic anaesthetic practice and demonstrated the relatively high rate of severe orbital complications such as perforation and significant retrobulbar haemorrhage associated with ophthalmic needle local anaesthetic techniques.¹ Rather surprisingly the severe complications were more common in the peribulbar group than in the less trendy retrobulbar group. The relative orbital safety of both sub-Tenon's local anaesthesia (STLA) and topical anaesthesia (TA) was demonstrated, although no technique was devoid of systemic problems. The Royal College of Ophthalmologists and the Royal College of Anaesthetists are shortly to publish new evidence-based guidelines for the common ophthalmic local anaesthetic techniques.

In this issue of *Eye*, a team from Worcester Royal Infirmary present a large single-centre study of 1000 consecutive peribulbar anaesthetics (PBA) with an impressively low rate of complications, most of which were minor.² The authors are to be congratulated for a superb series. There were no sight- or life-threatening events. The authors conclude that peribulbar local anaesthesia is safe and effective provided that it is taught methodically and

practised by experienced staff. It is within this last sentence, with which I agree wholeheartedly, that the problem arises. Where skill is required, experts will always get the best results. They will have lower complication rates than their more average colleagues. That is one reason why they are regarded as expert. The measure of a technique is its acceptability, in terms of ease of performance and low incidence of complications, in both expert, non-expert and novice hands. Is PBA a technique that you would be happy for a new locum consultant to administer on your behalf? Would you expect this to be performed effectively and without danger to the patient? In other words, can PBA tolerate poor technical performance and still be safe and effective? Is it acceptable under clinical governance to continue to advocate PBA when there are safer, less demanding alternatives which are at least as effective?

The ideal technique, which, of course, does not exist, is safe (no complications), effective (full anaesthesia, and if required full akinesia) and tolerable (painless to administer and freely reversible after the procedure) in all hands. This is preferable to a technique which is safe, effective and tolerable only in expert hands. It is for this reason that I believe that needle local technique for cataract surgery will fall out of favour with time. It is not because of their ineffectiveness; the Worcester paper attests to the safety, effectiveness and tolerability of this technique in their expert hands. It is for the applicability of the technique to the vast majority of practitioners. A high degree of skill is required to get these exceptional results. Even such an acknowledged world expert in ophthalmic anaesthesia as Roy Hamilton recently told of his first perforation in 18 000 cases (unpublished data). Unfortunately we know that, on occasions, sharp needle techniques in less able hands can lead to disastrous problems.³⁻⁵

TA is adequate for some surgeons and some patients, but the high proportion of additional measures required perioperatively makes it an unpalatable choice for those who believe that

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we should eliminate pain before, not after it happens.⁶ A STLA of sufficient volume gives full and reliable anaesthesia with low perioperative visual analogue pain scores.^{6,7} In the national survey, neither was associated with globe perforation¹ (although a STLA perforation has recently been reported during the initial dissection for a repeat detachment procedure, a contraindication for STLA in our unit⁸). Both techniques are easy to teach and learn and very forgiving of poor technique. I am sure that I could teach not only my theatre porter, but a GNER porter to give a TA with complete safety. Most people with binocular vision, a knowledge of the contraindications and the slightest bit of hand-eye co-ordination can give a STLA with a high margin of safety.

Peribulbar and retrobulbar techniques give good results in expert hands but are not forgiving of poor technique. This is why, I believe, with time, they will fall out of favour.

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