

term use by the Home Secretary on 21 August 1996, is unlikely to present a major problem to ophthalmologists; it would be interesting to hear of other units' experience of this agent.

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References

1. Yih JP. CS gas injury to the eye. *BMJ* 1995;311:276.
2. Gray PJ, Murray V. Treating CS gas injuries to the eye: exposure at close range is particularly dangerous [letter]. *BMJ* 1995;311:871.

Sir,

We would like to comment on the study by Bell, Butt and Gardner on 'Warming lignocaine reduces the pain of injection during local anaesthetic eyelid surgery' (*Eye* 1996;10:558-60). Usually the most uncomfortable part of eyelid surgery for the patient is the administration of the local anaesthetic, and anything that can be done to reduce this discomfort is worth considering. We have found that by diluting the standard 2% lignocaine with an equal volume of water for injection before infiltrating produces much less discomfort for all our patients compared with using undiluted 2% lignocaine. The reduced discomfort causes less eyelid squeezing whilst infiltrating, making it easier to achieve a decent block - the effects of which last long enough for routine lid surgery such as chalazion incision and entropion and ectropion surgery to be adequately completed. Whilst Bell *et al.* describe prewarmed lignocaine to be less painful than cold lignocaine we feel that diluting the 2% lignocaine reduces the discomfort just as effectively and is possibly less time-consuming to do.

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Sir,
The comments by Karia and Rahman are welcomed. The technique of diluting local anaesthetic prior to

injection is well recognised and is also used in our department. Whilst using diluted lignocaine would be acceptable for relatively minor procedures such as chalazion incision and entropion and ectropion repair, there would be concern about the adequacy of the block for longer oculoplastic operations such as ptosis correction and more complicated tumour excisions requiring grafts. If further injections were to be needed then the whole purpose of the technique would be defeated.

The act of using warmed lignocaine need not add extra time to a theatre list, but it does require organisation. Thermostatically controlled water baths, dry incubators, baby bottle warmers and yoghurt makers are all commercially available and can be conveniently set up in the anaesthetic room by the nursing staff, half an hour prior to the start of a list, so that the vials of anaesthetic have come up to temperature by the time the first patient has arrived.

We have also been able to show that the use of warmed anaesthetic reduced the pain of injection associated with peribulbar block prior to cataract surgery.¹ An alternative technique which provides an excellent painless block is to use a pre-injection of 1-2 ml of 2% lignocaine diluted to 10% of its strength with balanced salt solution. This is then followed by the main injection of normal strength (2%) lignocaine, by keeping the needle *in situ* and exchanging the syringes. This method could also be applied to lid surgery, however avoiding the potential drawback of a shorter duration of action associated with the use of diluted anaesthetic on its own.

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Reference

1. Bell RWD, Butt ZA. Warming lignocaine reduces the pain of injection during peribulbar local anaesthesia for cataract surgery. *Br J Ophthalmol* 1995;79:1015-7.

Sir,

I read with interest N. P. O'Donnell and W. Gillibrand's Letter to the Journal 'A comparison of the efficacy of tropicamide applied topically using a novel ophthalmic delivery system versus a phenyl-