PERIBULBAR ANAESTHESIA

Sir,—Joseph et al report a case of globe penetration occurring as a complication of peribulbar anaesthesia. They highlight the potential risks of this procedure which have been previously reported.1 2 They also advocate the use of short blunt needles and the possible use of subconjunctival administration of the anaesthetic in order to minimise the risk of globe penetration. Although the case presented does indeed demonstrate the possible hazard of peribulbar anaesthesia the authors fail to provide any convincing evidence to support their proposals.

The length of the needle used in the presented case is irrelevant as the penetration occurring in this case could still have been caused by a shorter needle. Although the use of a shorter needle has been described and should reduce the likelihood of posterior entry and exit wounds (as occurred in the series examined by Duker et al1) and optic nerve injury; penetration at the equator and anterior to this region will not be prevented if the needle tip is misplaced. Even in the emmetropic patient it is usually possible to indent the equatorial retina, for the purpose of fundoscopy, by pressure on the skin surface. It is then easy to imagine the length of needle required to traverse the distance between skin surface and equatorial retina being less than 2 cm.

The lack of sharpness of the Atkinson needle in the presented case did not prevent globe penetration. Indeed it is possible that the blunt tip actually compresses the tissues ahead of the tip thus giving a misleading impression of depth of injection.

The equator of the globe, with the eye in the posterior portion of the corneal diametral plane at the equator, is the most frequently traumatized by indentation. Any needle entering the orbital region anteriorly must be directed in such a manner as to avoid encountering the sclera. Only by accurately judging the position of the equator can a needle be inserted in safety. A technique of indentation, via skin or conjunctiva, can be used to judge the limits of the globe and, if uncertain, examination of the retinal indentation just prior to the injection could confirm the identification of the equator.

The use of the subconjunctival route for local anaesthesia has been described as a satisfactory method, and could be expected to lead to a reduced risk. Unfortunately even this still carries some risk of penetration as illustrated by Yanoff, and the length of the needle is even less important in this technique as there is less tissue for an errant needle to traverse before reaching the globe.

In summary this case indeed confirms the findings of others that peribulbar injections may be dangerous, despite the advantages over the retrobulbar route.1 2 However it is doubtful that a shorter needle could have prevented penetration — in this case of globe penetration. The blunt needle has been shown here to have its limitations; in addition subconjunctival injection does not virtually eliminate risk of penetration as stated by Joseph et al. Surely one can only draw the conclusion that all needles in the orbit are potentially hazardous in the wrong hands, and that careful supervision and training in technique have far more relevance than the type of needle used in the administration of local anaesthesia prior to oculary surgery.

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The response of a peribulbar anaesthetic

Sir,—The potential risks of peribulbar anaesthesia are well known. However, we would like to point out that the peribulbar anaesthetic in our case was administered by an experienced, well trained ophthalmologist who subsequently performed the surgery. We believe the complication of globe perforation could have been prevented and merely reflects the hazards of needles in the orbit. The use of a short blunt peribulbar needle would be expected to reduce the risk of globe penetration, but not eliminate it altogether, even in the most skilled hands.

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Reply

Sir,—I quite agree with Dr Hogeweg’s comments concerning the risks of facial patches with leprosy reactions and lagophthalmos. This occurs exclusively in the type I (reversal) reaction, and not in ENL. This was an error in the text for which I apologise. The