

Kinetic anaesthesia for diabetic laser surgery

Author: F.M. Cuthbertson, R.S.B. Newsom, A.C. Wainwright

Purpose:

Local anaesthetic is widely used in ophthalmic surgery and more recently in vitreoretinal surgery. Akinesia is a useful effect of local anaesthetic blocks, but there are situations where some residual globe movements are of benefit. We looked to see whether reducing the volume of anaesthetic solution used in a block could retain some kinesis while achieving good analgesia.

Methods:

We compared two groups of patients undergoing pan-retinal photocoagulation (PRP) with an indirect laser. The control group received 5ml of anaesthetic solution in a single injection by a standard intraconal technique; a second group received a lower volume of solution by the same technique. We recorded the adequacy of analgesia and the amount of residual akinesia for the two groups. Differences between groups were analysed using the students t-test and chi-squared tests.

Results:

The low volume group received an average of 2.8ml, compared to 5ml in the control group. There was no significant difference in the adequacy of analgesia achieved, however 16/18 (89%; 95%CI=81.5-96.3%) of the low volume group had good perioperative kinesis compared to just 3/21 (14%; 95%CI=6.6-21.9%) of the controls ($p \leq 0.001$).

Conclusion:

We have shown that low-volume intraconal blocks retain some perioperative kinesis without compromising their analgesic effect.

