

Commentary: Lying down looking down test: Evaluating patient suitability for small incision cataract surgery using assisted topical anesthesia

The authors present a novel method to ascertain the suitability of a cataract patient to undergo surgery under assisted topical anesthesia (ATA) using the lying down looking down test.^[1] Also, they have used manual small incision cataract surgery (SICS) as their technique of choice. They used a standard LED torch to shine light in the patient's eye after pupil was dilated, with the patient in lying down position and simultaneously elevated the upper lid using a finger. A patient who squirmed, reported discomfort or moved her head or eyes was considered a negative test and unfit for their "assisted

topical anesthesia." This was similar to the Laninder test tried out in Australia to compare suitability of topical anesthesia for phacoemulsification.^[2]

While numerous studies have demonstrated that visual rehabilitation by phacoemulsification and manual SICS is comparable, phacoemulsification remains enormously popular in discerning patients because of its early rehabilitation and possibility of topical anesthesia.^[3,4] Fear of injection has been a significant barrier in patients undergoing cataract surgery. There have been numerous publications comparing peribulbar versus topical anesthesia for phacoemulsification,^[5-7] but earlier comparison in SICS were with subtenon anesthesia,^[8] and only later with topical as superior rectus muscle handling and larger tunnel may be needed in SICS.^[9-12] Topical anesthesia needs patient cooperation, has more globe motility intraoperative, and may need more anesthesia-top up, especially if the surgery is prolonged or complicated.^[7] There is less risk of trauma to orbit and corresponding swelling.^[5,7] While many surgeons

may prefer a peribulbar block,^[7,8] the “complete” anesthesia, in today’s practice, the patient as a consumer is the king! Comfort of patient often overrides the comfort of the surgeon. However, safety is nonnegotiable for both.

Thus, how to decide which patient would be a successful candidate for topical anesthesia is often subjective and unpredictable. All earlier comparisons had patients in topical group who needed additional anesthesia.^[5,7,8,10] They had not elucidated what would predict this. LDLD may give the answer. In xxx study, only 7.4% of patient with positive LDLD had to be converted to “assisted local anesthesia” (ALA, peribulbar block).^[1] LDLD had a positive predictive value of 92.6% and specificity 93.5%. The authors wisely chose noncomplicated cataracts with well-dilating pupils as their subjects. Hard cataracts, which form a major proportion of manual SICS surgeries, were not excluded. However, the authors have not mentioned the details of how the patients were randomized to both groups.

The LDLD test could be easily performed after doing the A-scan, or in the preparation room before the start of surgery, by a paramedic. The authors have used ATA, in effect combining three forms of anesthesia: it had 2% Lignocaine jelly before the surgery, later intracameral lignocaine during surgery, and at end of surgery, topical 0.5% proparacaine drop for subconjunctival injection.^[1] So preoperative gel, intracameral, and postoperative topical drops were used. Wang L reported topical plus intracameral to be more comfortable for the patient than topical alone.^[11] The intracameral use has a potential fear of toxic anterior segment syndrome. They also did larger sclera-corneal tunnel to facilitate unhindered nucleus delivery. This would have implications on the postoperative astigmatism. There was vocal encouragement, as in all topical anesthetics. This would be a handicap in those hard of hearing, deaf, and those patients who understand a different language. Time in ATA was 12% more than retrobulbar block (11 min vs 9.8 min).^[1] ALA patients had more aqueous flare and conjunctival congestion, while the ATA group had more corneal edema and subconjunctival hemorrhage.

Finally, both patient and surgeon comfort have to be addressed to, and safety considered. Surgeons are worried about pain to patients. It can slow down surgery, while giving additional anesthesia is troublesome. An uncomfortable patient leads to more surgeon time, during and after surgery. Many patients are more worried about the injection, rather than the surgery.^[5,7,8]

The authors/XXX need to be commended for thinking of such a simple, practical, inexpensive, and relevant test that would increase the opportunities for use of injection-less anesthesia for more cataract surgeries.

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