Manual tunnel incision cataract surgery with sandwich technique may be a rationale alternative for mature cataracts

Dear Editor,

We read with interest the article of Yang et al. appearing on April issue of Indian J Ophthalmology. As the surgeons performing manual small incision cataract surgery since 1996, we would like to note couple of points about Yang et al. ’s paper:

There is an erratum on the results section of abstract. It has been written that “self-sealing wound was achieved in 112 eyes (98.2%).” However, the study had consisted 112 eyes. The correct number should be “110 eyes (98.2%).”

This technique necessitates an incision at the location of 135° for right-handed surgeon and of 45° for left-handed surgeon. Hence, it will not be easy to perform it in the surgery of left eyes for right-handed surgeon and in the surgery of right eyes for left-handed surgeon, especially in the eyes with prominent eyebrows and big nose.

It is not easy to arrange the incision according to steep-axis in Yang et al.’s technique. Hence, the surgeon will not correct the preexisting astigmatism in some cases. Indeed, the authors have given a bigger mean value of postoperative astigmatisms (1.5 D) than of preoperative astigmatism (0.71 D).

The authors implanted a polymethylmethacrylate (PMMA) intraocular lens (IOL). While PMMA IOLs are cheap IOLs, they have significant spherical aberration. Today, there are cheap foldable IOLs that do not have such significant spherical aberration and can be use for this type of surgery.

Yang et al. perform a large, 7 mm capsulorrhesis. This can increases likelihood of the decentralization of the IOL and probably increased posterior capsule opacification rate since the capsular edges do not overlap the optic edge circumferentially. Due to this, we prefer a 6.0 mm diameter circular capsulorrhesis and an IOL of 6 mm optic diameter. We do not encounter with any difficulty to prolapse the nucleus into the anterior chamber with 6 mm capsulorrhesis.

We have been preserving the manual small incision cataract surgery in hard, brunescent cataract cases and in the cataract cases of vitrectomized eyes in which we consider that phacoemulsification may be risky. We think that sandwich technique presents some advantages in mature cataract cases. In this method, the nucleus firmly grasped between two instruments, irrigating vectis and spatula. So an incision length of a diameter of the nucleus or 1 mm more is enough to be able to extract the nucleus out to the eye. Furthermore, we consider that removing the nucleus via sandwiching it firmly between two instruments prevents the corneal endothelium more than extracting it via just only vectis or exerting a pressure on the scleral wound lip, since the spatula in front of the nucleus would ensure to stay it away from the endothelium.

In conclusion, We congratulate Yang et al. for this novel and interesting technique, which is a valuable contribution, especially for the surgeons who do not have enough instrumental possibilities to carry out phacoemulsification in undeveloped areas.

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References