Vitreous assisted levitation of subluxated intraocular lens/nucleus with anterior vitrectomy and anterior chamber intraocular lens implantation

Dear Editor,

I read with interest the original article titled "Anterior chamber IOL – an effective alternative in traumatic and surgical aphakia in the era of SFIOL."^[1] We have been performing insertion of open-loop Kelman type anterior chamber IOL for secondary aphakia in our tertiary care hospital for last 20 years with excellent results. The indications are the various complications of cataract surgery performed by residents, such as large posterior rent, sinking IOL, dropped nucleus, and cases of subluxated and traumatic cataracts.

The few modifications of anterior vitrectomy technique for successful ACIOL are as follows:

 Vitreous assisted levitation of mid or anterior vitreous subluxated nucleus or IOL is initiated by performing a controlled aqueous drainage with anterior chamber paracentesis, which leads to forward movement of the anterior hyaloid phase and along with it floats up the IOL into the pupillary plane. A limited closed chamber anterior vitrectomy is performed freeing the IOL, leading to easy explantation using Sinsky hook and Macpherson IOL forceps through the original incision.

- 2. Similarly, the nucleus in anterior vitreous is also prolapsed into the anterior chamber floating on the vitreous after a paracentesis, followed by a toilet anterior vitrectomy and is extracted using a wire vectis.
- 3. This is followed by a closed-chamber anterior and mid vitrectomy from the side port paracentesis using an AC maintainer. The pupil is constricted and vitreous strands coming to the wound are freed with a sweep of iris repositor spatula that are cut. This is followed by the insertion of an ACIOL under viscoelastic protection. The haptics are dialed horizontally by flexing the haptics, avoiding iris tucks and a vitrector peripheral iridectomy is done. The wound is closed using 10/0 nylon sutures.

This technique avoids dropping the IOL onto the retina and hence precludes the need for a total vitrectomy in most cases except where the vitreous is liquified and the IOL and nucleus sink deep down to the macula. Hence, ACIOL with generous anterior vitrectomy is less traumatic, much faster, and an easier procedure than SFIOL.

Financial support and sponsorship Nil.

Conflicts of interest

There are no conflicts of interest.

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Reference

 Mahapatra SK, Mannem N, Anterior chamber intraocular lens-As an effective alternative in traumatic and surgical aphakia in the era of scleral fixated intraocular lens. Indian J Ophtalmol 2021;69:1404-8.

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Access this article online	
Quick Response Code:	Website:
	www.ijo.in
	DOI: 10.4103/ijo.IJO_2062_21

Cite this article as: Dudani AI, Dudani A, Dudani K, Dudani A. Vitreous assisted levitation of subluxated intraocular lens/nucleus with anterior vitrectomy and anterior chamber intraocular lens implantation. Indian J Ophthalmol 2022;70:339-40.

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