Anterior chamber intraocular lens in children

Dear Editor,

I read with interest the original article titled "Retropupillary iris claw lens versus Gore-Tex assisted scleral fixated intraocular lens in children with large lens subluxations"[1] which concluded comparable results in both groups and ease of insertion of iris claw and safety in cases of high-risk retinal detachment.

I feel anterior chamber intraocular lenses (ACIOLs) are very easy to implant with a minimal learning curve, and the modern open loop Kelman type ACIOLs are safe[2] in the long-term and we have 25 years of follow-up in cases of Marfan's syndrome and Weil Marchesani.

There are a few modifications in surgical technique which we follow in these small eyes with complex lenticular subluxations:

1. Anterior limbal lensectomy and vitrectomy approach is preferred to the pars plana after adequate pupillary dilatation. An anterior chamber maintainer is inserted for infusion through one paracentesis and a 23-gauge vitrector through another for a coal mining technique of lensectomy. The cut rate of the vitrector is set to 600 cuts/min with vacuum of 250 mmHg and the lensectomy is completed (without lens dropping in vitreous by leaving posterior lens capsule intact till the end) followed by capsulectomy and generous anterior vitrectomy.
2. The pupil is constricted with carpinol injection and ACIOL is my choice of lens as it is angle-supported with no iris contact due to the anterior vault of the optic. The proper sizing ACIOL is important (WTW + 1 mm).
3. A limbal incision of 5.5 mm is created to glide the ACIOL under viscoelastic protection over the iris and the trailing haptic is tucked into the angle. The ACIOL is dialed to place the haptics horizontally by flexing the haptics and rotating them into 3 and 9 o'clock positions [Fig. 1]. A peripheral button hole iridectomy is done at 12 o'clock position with the vitrector, and the wound is closed with 10-0 nylon sutures.
4. The advantage of limbal approach is avoiding the pars plana sclerotomies. The ACIOL maintains a central circular freely mobile pupil (pupil ovalisation in 60% of iris claw cases) which dilates fully, allowing detailed retinal exam postoperatively.
5. This procedure of ACIOL insertion has short surgical time and no lens dislocations or iris chafing which can be encountered in iris claw cases with spontaneous disenclavation, iris atrophy, pigment dispersion, hyphema and cats' eye pupils. Scleral fixated intraocular lens (SFIOLs) in children are difficult to fix as the sclera is extremely collapsible in children and complications of retinal detachment, IOL tilt, and vitreous hemorrhage are possible.
6. The side effects of ACIOL are minimal if a generous anterior vitrectomy is used to form a deep anterior chamber. The fear of corneal decompensation is exaggerated as the ACIOL skates over the iris and is far from the corneal endothelium.

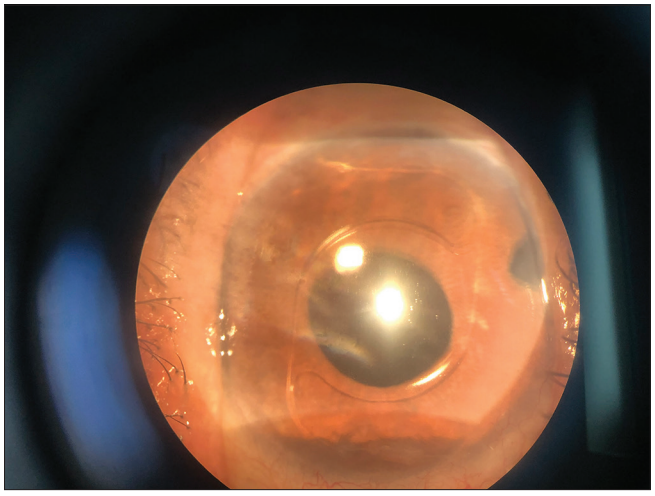

Figure 1: ACIOL in situ with PBHI

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Conflicts of interest

There are no conflicts of interest.

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