

Combined pars plana vitrectomy and iris claw lens in management of dislocated cataract or IOL

Irfan Faraz^{1*}, Vijaya Lakshmi B², Gopal Kishan M³

¹Assistant Professor, ³Professor and HOD, Department Of Ophthalmology, Deccan College of Medical Sciences, Hyderabad, INDIA.

²Ophthalmology Consultant, Eye Care Hyderabad, INDIA.

Email: dr.irfanfaraz@gmail.com

Abstract

Aim: To report management of posteriorly dislocated cataractous lens/IOL with Combined Pars Plana Vitrectomy and Iris claw lens implantation. **Method:** This is a retrospective study of 6 cases of dislocated IOL(4) and cataractous lens(2) at a tertiary eye Hospital in Telangana between October 2016 and February 2017 .Two case each of nucleus drop and IOL drop occurred in our hospital. Rest were referred from outside. These six patients were subsequently taken up for secondary procedure after reduction of corneal edema and inflammation. Three port PPV was done in all cases with nucleus/IOL retrieval, Iris claw lens was implanted and surgical peripheral iridectomy. Section was sutured where necessary. All patients were followed up for minimum of 3 months post operatively. **Results:** All patients had uneventful post op recovery with BCVA of 6/12 - 6/9 at 3months postoperative followup. Long term results are yet to be evaluated. **Observation:** Iris claw lens along with PPV offers a safe, easy and affordable alternative as a secondary IOL in cases with posteriorly dislocated lens with no or inadequate capsular support.

Key Words: Dislocated cataractous lens, dislocated IOL, Iris claw lens, Pars plana vitrectomy.

*Address for Correspondence:

Dr. Irfan Faraz, Department Ophthalmology, Deccan College of Medical Sciences, Hyderabad, Telangana-500058, INDIA.

Email: dr.irfanfaraz@gmail.com

Received Date: 21/07/2017 Revised Date: 10/08/2017 Accepted Date: 02/10/2017

DOI: <https://doi.org/10.26611/1009332>

Access this article online	
Quick Response Code:	Website: www.medpulse.in
	Accessed Date: 11 September 2017

INTRODUCTION

Cataract surgery is the most common surgery performed by the ophthalmologists. Phacoemulsification is the standard of care in most ophthalmological set ups .complications during cataract surgery are rare in experienced hands. Dislocated cataractous lens comprises of one of the most important complications .Factors predisposing to this complication include posterior polar cataract, pre existing dehiscence in posterior capsule due to prior trauma. Intra operative complications which predispose to a dislocated lens include breach in the continuity of the capsulorrhexis, posterior capsular rent,

zonular dialysis etc. Intra ocular lens dislocation can be either during the cataract surgery or it may occur years after the primary surgery. Risk factors for the dislocation include pseudoexfoliation syndrome, trauma, zonular instability caused in connective tissue disorders. Medical management has little or no role in the management of dislocated cataract or intra ocular lens. Surgical management includes pars plana vitrectomy with intraocular lens retrieval ± silicon oil injection +iris claw lens fixation.^{1,2} Choice of procedure and its timing depends upon remaining capsular support, availability of alternate IOL, proper vitreous management, experience of operating surgeon.

Purpose: To report management of posteriorly dislocated cataractous lens/IOL with combined Pars Plana Vitrectomy and Iris Claw lens implantation

MATERIALS AND METHODS

This is a retrospective study of 6 cases of dislocated IOL (2) and cataractous lens (4) presented to ophthalmology department of Deccan College Of Medical Sciences between October 2016 and Feb 2017. Two cases each of nucleus drop and IOL drop occurred in our hospital while remaining two cases were referred from outside.

CASE SUMMARY

- Case 1: 55 yr old female with NS4 cataract and pseudoexfoliation with miotic pupil (3mm), underwent SICS. Pupil was refractory to dilation with OVD, intracameral adrenaline and stretch pupilloplasty . ZD occurred during nucleus rotation and nucleus dropped while attempting delivery
- Case 2: 70 yr old male with small pupil and Morgagnian cataract and Zonular weakness. Had a nucleus drop
- Case 3: Small PCR occurred during phacoemulsification which was recognized early. Foldable PCIOL was put in the bag. No vitreous disturbance. IOL was stable intraoperatively and on 1st post op day. Patient presented one week later with diminished vision and IOL drop.
- Case 4: 45 yr old female with high myopia, calculated IOL power of 6.00 diopters and NS 5 cataract. Underwent SICS and PCR occurred during nucleus delivery. IOL implantation in the sulcus was attempted which dropped into the vitreous.

Procedure: All these patients were subsequently taken up for secondary procedure after decrease of corneal edema and inflammation. 23 Gauge 3 port Pars Plana Vitrectomy was done in all cases and the dropped IOL and nucleus was retrieved with the help of PFCL (2+2 cases). In 2 cases the nucleus was fragmented using a fragmotome by converting one sclerotomy from 23G to 20G. Iris Claw IOL was implanted by retrofixation to the iris and PI done. Section was sutured in two cases. All cases were followed up for a minimum of 3 months

RESULTS

Table 1: Showing the post operative details of BCVA *- referred cases

	BCVA			
	POD 1	1 Week	1 month	3 months
Case 1	6/36	6/18	6/9	6/9
Case 2	6/24	6/18	6/9p	6/6
Case 3*	6/60	6/60	6/24	6/9
Case 4	6/12	6/9	6/9	6/9
Case 5*	4/60	6/36	6/18	6/12
Case 6	6/18	6/18	6/12	6/12



Figure 1: Post op photo of case 1 showing Iris claw lens and normal fundus

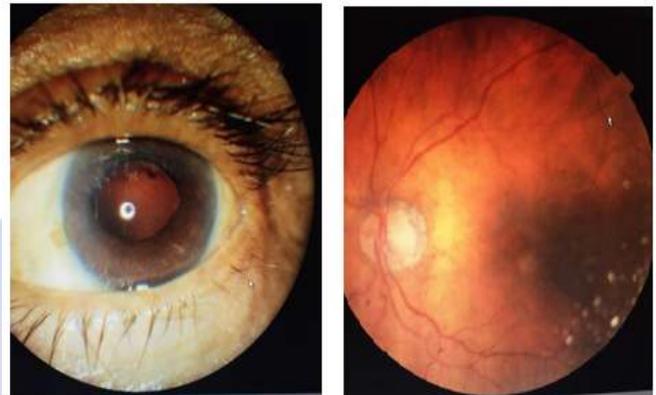


Figure 2: Post-op photo of case 2 showing Iris claw lens and Myopic fundus

DISCUSSION

In cases where there is a posterior capsular dehiscence, options for IOL available are inserting a 3 piece hydrophobic intra ocular lens in the sulcus. Other options are available are anterior chamber intraocular lens (ACIOL), scleral fixated IOL (SFIOL), Iris claw lens. Three piece lens in the sulcus requires the presence of intact capsulorrhexis rim. ACIOL is easier to insert but will need a peripheral iridectomy. complications of ACIOL include endothelial decompensation, corneal edema, secondary glaucoma, cystoid macular edema. SFIOL is technically difficult and takes longer intraoperative time. IOL tilt, decentration, dislocation into vitreous, choroidal haemorrhage, retinal detachments are some of the complications associated with it.¹ Iris claw lens is technically easy and away from the cornea and is a useful alternative in patients with no capsular support.^{4,5,6} All cases were evaluated on 1st POD, at 1 week, at one month and at the end of three months. IOP was recorded at each visit. Two cases had temporary raise of IOP which subsided in two weeks and no secondary glaucoma was observed. Case 3 and case 5 received sutures at the section which were removed after 1 month and visual acuity improved subsequently. CME and iris chaffing

with mild pigment dispersion on IOL was noticed in two cases. IOL was stable at the end of 3 months in all cases and no other complications were noted. Limitations of our study include Short term follow up, being a small case series, long term results are yet to be evaluated.

CONCLUSION

Iris claw IOL with PPV offers a good alternative for management of posteriorly dislocated nucleus or IOL with the advantages being economical, easily available, easy technique of implantation. It is ideal in cases with no capsular support.

REFERENCES

1. Farrahi et al. Iris Claw versus Scleral Fixation Intraocular Lens Implantation during Pars Plana Vitrectomy. *J Ophthalmic Vis Res* 2012; 7 (2): 118-124.
2. Wagoner MD, Cox TA, Ariyasu RG, Karp CL. American Academy of Ophthalmology. Intraocular lens implantation in the absence of capsular support; a report by the American Academy of Ophthalmology. (ophthalmic technology assessment) *Ophthalmology*. 2003; 110: 840–59.
3. Patil, et al. Pars plana vitrectomy with posterior iris claw implantation for posteriorly dislocated nucleus and intraocular lens. *Indian J Ophthalmology*. 2011 Nov-Dec; 59(6): 497–500
4. Gicquel JJ, Langman ME, Dua HS. Iris claw lenses in aphakia. *Br J Ophthalmol*. 2009; 93:1273–5.
5. Asadi R, Kheirkhah A. Long-term results of scleral fixation of posterior chamber intraocular lenses in children. *Ophthalmology* 2008; 115:67-72.
6. Condon GP, Masket S, Kranemann C, Crandall AS, Ahmed II. Small-incision iris fixation of foldable intraocular lenses in the absence of capsule support. *Ophthalmology* 2007; 114:1311-8.

Source of Support: None Declared
Conflict of Interest: None Declared

