Abstract: 1404

Long term outcomes of combined pars plana vitrectomy with placement of anterior chamber intraocular lens versus glued posterior chamber intraocular lens.

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Purpose:
To evaluate long term clinical outcomes in patients with combined pars plana vitrectomy (PPV) with placement of anterior chamber intraocular lens (ACIOL) versus posterior chamber fibrin glue-assisted intraocular lens.

Methods:
We conducted an IRB approved, retrospective consecutive chart review on patients who underwent PPV with concomitant placement of either anterior chamber or fibrin glued posterior chamber lens (PCIOL) for aphakia, dislocated IOL or dropped crystalline lens at the University of Iowa Hospitals and Clinics from 2/9/2000 to 5/7/2018. Patients with less than 32 weeks of follow up were excluded. Detailed pre-, intra-, and post-operative complications were analyzed using mixed model univariate analysis. Post-operative complications included lens subluxation, uveitis-glaucoma-hyphema syndrome, corneal decompensation, hyphema, glaucoma, suprachoroidal hemorrhage, choroidal detachment, cystoid macular edema, vitreous hemorrhage, epiretinal membrane and retinal detachment. Statistical significance was set at $p<0.05$ for all comparisons.

Results:
A total of 25 eyes in 25 patients (7 females and 18 males) met the inclusion criteria and were analyzed. There were 12 patients in the ACIOL group and 13 patients in the fibrin glued PCIOL group. The mean age at time of surgery was 70.4 in the ACIOL group and 54.6 in the fibrin glued PCIOL group ($p = 0.03$). Median follow up was 120 weeks The mean Snellen equivalent best corrected visual acuity (BCVA) pre-operatively was 20/588 in the ACIOL group and 20/134 in the fibrin glued PCIOL group ($p = 0.07$) with a final BCVA of 20/341 and 20/90 respectively ($p = 0.15$). There was no difference in the mean change in visual acuity at the final visit between the two groups ($p = 0.47$). Neither group had suprachoroidal hemorrhage or choroidal detachment intraoperatively. Postoperatively, there was no difference in the number of complications between the two groups ($p = 0.097$) and there was no significant difference in corneal decompensation between placement of ACIOL or fibrin glued PCIOL lenses (33% and 31% respectively, $p = 0.94$).

Conclusions:
PPV with concomitant placement of ACIOL or fibrin glued PCIOL both result in improvement in visual acuity. These procedures are well tolerated and result in similar complication profiles with long-term follow-up.