



Late in-the-bag intraocular lens dislocation—a randomized clinical trial comparing lens repositioning and lens exchange

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Brief introduction

Kristianslund recently published a well-designed prospective study comparing two techniques to repair late dislocation of the intraocular lens (IOL) capsular bag complex (1). The study compares repositioning with transscleral suturing of the existing IOL to exchange for an iris claw fixated IOL. In this study of elderly patients, most with the pseudoexfoliation (PXF) syndrome, and often with preexisting glaucoma, there was little difference in the outcome between the two surgical techniques. However, the study did point to a few subgroups that might lead a surgeon to use one technique over the other.

Study

Kristianslund and his team at the Oslo University Hospital randomly placed 104 patients in two treatment groups: one receiving repositioning of the existing IOL complex with a common scleral suturing technique; and the other receiving an exchange of the existing IOL complex for an iris claw IOL positioned posterior to the iris (Verisyse VRSA54, Abbott Laboratories, Inc., Abbott Park, IL, USA). The two study groups were remarkably similar with the average age around 80 years, time since cataract surgery around 10 years, in both groups about 80% had the PXF syndrome and in both groups about 60% had either diagnosed glaucoma or an elevated intraocular pressure (IOP).

The surgery times were fast with the average time of the reposition surgery about 24 minutes and the exchange surgery 14 minutes. The reposition group was more likely

to have intraocular hemorrhage (almost 5%) and the IOL exchange group was more likely to have iris damage (almost 20%) and anterior vitrectomy (40%).

The study included data on about 80% of the patients to the 6-month follow-up end point. The visual outcomes were similar in the two groups. The biggest post-operative issues were roughly equal in the two treatment groups and included about a 10% risk of cystoid macular edema (CME) and about a 30% chance of an increase in IOP. Despite the need for the larger incision with the exchange technique, the postoperative astigmatism was similar in the two groups. The endothelial cell density (ECD) loss was relatively mild in both groups but on analysis was significantly greater (3% vs. 10%) in the exchange group.

Recommendations

While overall the two treatment groups were very similar, Kristianslund does propose a few subgroups that might benefit with one procedure over the other. The reposition procedure may be preferred with young patients who might have more risk with vitreous loss, patients with small pupils who might be at increased risk of iris damage and for patients with compromised cornea endothelium. The exchange procedure may be preferred with patients on anticoagulants, patients with an existing IOL off power, and with patients who need a quicker procedure for any reason. In an interesting addition to this study Kristianslund published a separate analysis of these patients regarding glaucoma with a slight preference for the exchange procedure in patients with glaucoma (2).

Summary

I applaud Kristianslund and his group for this excellent study. They provide a rare prospective study to help us treat the increasing problem of delayed sub-luxated IOLs. Unfortunately the iris claw IOL is not available in the US where I practice so ophthalmologists in our region will have to extrapolate a bit from this important study to the IOLs we are allowed to use.

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Footnote

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