Management of 2 Intraocular Lenses in the Same Eye

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Objective: To present options for managing a patient with a dislocated intraocular lens (IOL) in the presence of a second, nondislocated IOL.

Methods: A review of 3 consecutive cases and the surgical maneuvers used in managing them.

Results: The anterior chamber IOL was removed after scleral fixating the dislocated posterior chamber IOL in 1 case with corneal disease. The foldable, dislocated, original posterior chamber IOL was manipulated around an existing posterior chamber IOL and then removed at the limbus in 2 other cases. The visual acuity and retained IOL were stable in all 3 eyes.

Conclusions: Existing techniques with minimal modifications can be applied to managing an eye with a dislocated IOL and a coexisting nondislocated IOL with satisfactory results, but treatment needs to be customized to the specific situation.
removed through a superior scleral tunnel (video 1, http://www.jamaophth.com). The BCVA was stable at 20/100, limited by the pre-existing corneal pathology.

**CASE 2**

A 85-year-old man had an apparently nonmobile, dislocated silicone plate IOL 2 years after undergoing cataract surgery in his left eye. The cataract surgeon placed a second posterior PCIOL in the ciliary sulcus 1 month later. Two months after placement of the secondary PCIOL, the patient complained of mild blurred vision, but a large floater in the shape of the silicone plate haptic IOL was identified. His BCVA was 20/70, and there was macular edema. A pars plana vitrectomy was performed to remove the silicone plate IOL by grasping it with serrated Rapazz0 forceps and sliding it around the sulcus-fixated IOL into the anterior chamber; the sulcus-fixated PCIOL was gently and temporarily subluxed superiorly to admit the plate haptic PCIOL into the anterior chamber. The plate haptic IOL was unevenly removed through a scleral tunnel. Intravitreal preservative-free triamcinolone acetonide was injected at the end of the procedure (video 2). The BCVA in his left eye was 20/40, and the cystoid macular edema was resolved 13 months after surgery.

**CASE 3**

A 74-year-old woman had cataract surgery in her right eye, but the single-piece acrylic PCIOL became dislocated and immobilized in the inferior vitreous base soon thereafter, so the cataract surgeon placed a second posterior PCIOL in the ciliary sulcus 1 month later. Seven years after the placement of the secondary PCIOL, the patient started to complain of decreased vision in down gaze due to the now mobile acrylic PCIOL. The patient recalled several falls due to not being able to see well looking downward. Her BCVA was 20/25, and it varied with the position of the dislocated IOL. A pars plana vitrectomy was performed to remove the dislocated acrylic PCIOL by grasping it with intraocular forceps and directing it to the anterior chamber through a temporal, crescent-shaped posterior capsular opening without disrupting the position of the already-placed PCIOL (video 3). Her BCVA was 20/25, and the PCIOL was centered and stable 6 months after surgery.

Various techniques have been shown to be effective in the management of a posteriorly dislocated IOL, but reports regarding the management of a dislocated PCIOL in the presence of a second IOL are limited. As exemplified in these cases, several factors influence devising a definitive treatment plan. The first step is to determine which IOL to explant. For case 1, the ACIOL was explanted, and the initial IOL was sutured to the sclera using the technique of scleral suture fixation to minimize exacerbation of the corneal pathology and Descemet stripping endothelial keratoplasty. For case 2, the plate haptic PCIOL was explanted by sliding it over the stable 3-piece PCIOL already in the sulcus. A similar maneuver was used for similar reasons in case 3. The flexibility of the foldable PCIOL and the need for only slight decentration or zonular disruption of the existing sulcus- or bag-fixated IOL make this a surprisingly viable option. In all cases, the retained IOL remained stable postoperatively. Removing only one of the IOLs lessens the risks of IOL explantation, such as hyphema, iridodialysis, and damage to corneal endothelium, and would avoid the need to insert yet a third IOL, which might possibly be an ACIOL that carries even further risks to the corneal endothelium or other anterior segment structures. An alternative approach would be to remove the dislocated IOL through an enlarged pars plana incision, but that would seem to risk complications due to vitreous base manipulation more than would the technique of manipulating the foldable IOL around the stable one.

The surgical management of a second dislocated IOL in an eye needs to be tailored to the individual patient and depends on the underlying ocular pathology. Familiar, established procedures can be used to accomplish such objectives with stable, successful recovery of visual acuity.

**REFERENCES**