

## Special Article - Cataract Surgery

# Anterior Segment Optical Coherence Tomography in Anterior Dislocation of the Crystalline Lens

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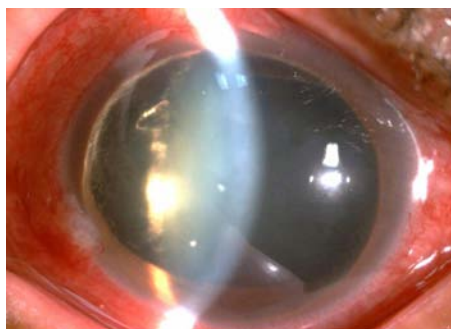
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## Keywords

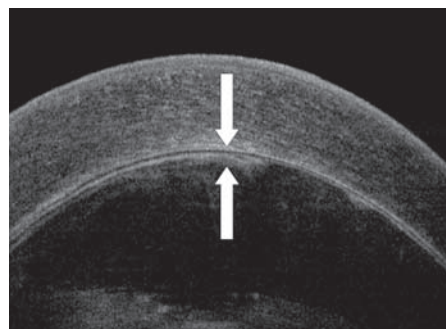
Anterior segment optical coherence tomography; Anterior dislocation of lens; Anterior chamber intraocular lens; Pars plana lensectomy

## Clinical Image

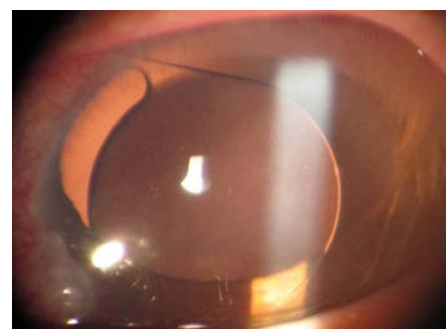
A 54-year-old Taiwanese woman experienced blurred vision and pain in the left eye for one week. She suffered from head injury 9 years ago. Best-Corrected Visual Acuity (BCVA) was hand motion, and Intraocular Pressure (IOP) was as high as 80 mmHg in the left. Slit lamp biomicroscope showed the right crystalline lens dislocating to anterior chamber (Figure 1). Anterior segment optical coherence tomography (AS-OCT, RTVue, Optovue, CA, USA) demonstrated anterior capsule of the lens and corneal endothelium were very close (Figure 2). Fundus examination and macular OCT did not show macular abnormality. Anterior dislocation of the crystalline lens and acute secondary glaucoma were diagnosed. Treatment with intravenous mannitol, oral acetazolamide, and topical timolol and



**Figure 1:** The crystalline lens dislocating to anterior chamber in the right eye.



**Figure 2:** Anterior segment optical coherence tomography showed the anterior capsule of the lens (lower arrow) nearly touched the corneal endothelium (upper arrow).



**Figure 3:** The anterior chamber intraocular lens was inserted.

brimonidine eye drops proved ineffective in controlling the elevated IOP. Pars plana lensectomy with phacofragmentome and 20-gauge vitrectomy (Alcon lab, Texas, USA) were performed to remove the crystalline lens and prolapsed vitreous on the next day. Subsequent anterior chamber intraocular lens (MTA3UO, Alcon lab, Texas, USA) was inserted (Figure 3). Postoperative corneal edema gradually subsided. The IOP returned to normal value. Three months after the surgery, BCVA improved to 20/30.

## Comment

Findings in AS-OCT were unique in the case with anteriorly dislocated crystalline lens. Proper removal of lens and intraocular lens insertion can improve vision and lower IOP effectively [1-3].

## References

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