

IMAGES IN EMERGENCY MEDICINE

Ophthalmology

Middle aged male with blurry vision following blunt orbital trauma

David J. Carlberg MD¹ | Michael C. Izzo MD² | Jonathan E. Davis MD¹¹ Department of Emergency Medicine, Georgetown University and MedStar Health, Washington, DC, USA² Department of Ophthalmology, Georgetown University and MedStar Health, Washington, DC, USA**Correspondence**

Jonathan E. Davis, MD, Ground Floor, CCC Building, 3800 Reservoir Road, NW, Washington, DC 20007, USA.

Email: jdthere@yahoo.com

[Correction added on 24 September 2020, after first online publication: the degree "MD" for the author "Michael C. Izzo" is added.]

A 54-year-old male with prior history of cataract surgery with intraocular lens implantation of the right eye presented to the emergency department with unilateral blurry vision a few hours after a direct blow to the closed right eye with a tennis ball. Symptoms included visual floaters. Visual acuity was 20/70 in the injured eye and 20/20 contralaterally. The right pupil appeared irregular (Figure 1) and remained non-reactive to light. Intraocular pressure was normal. Extraocular movements and corneal and visual field examinations were also normal.

1 | DIAGNOSIS

1.1 | Dislocated intraocular lens

Slit lamp examination revealed an anteriorly dislocated intraocular lens captured within the pupil by the iris (Figure 2). There was no evidence of hyphema, retinal tear, or detachment. Topical ocular steroid and cyclopentolate drops were initiated by ophthalmology, with plans for urgent surgical repair.

Blunt trauma to the orbit can present with a variety of ocular sequelae. Following cataract surgery, ocular trauma increases the risk for lens dislocation and the risk of retinal detachment more than doubles.^{1,2} Posterior lens dislocation into the vitreous is significantly more common than anterior dislocation, thus many dislocations are diagnosed through dilated funduscopic exam. Ocular ultrasound may aid in diagnosing retinal detachment or posterior lens dislocation.³ Patients with lens dislocation should be evaluated by an ophthalmologist on an

**FIGURE 1** Photograph of right eye following blunt trauma

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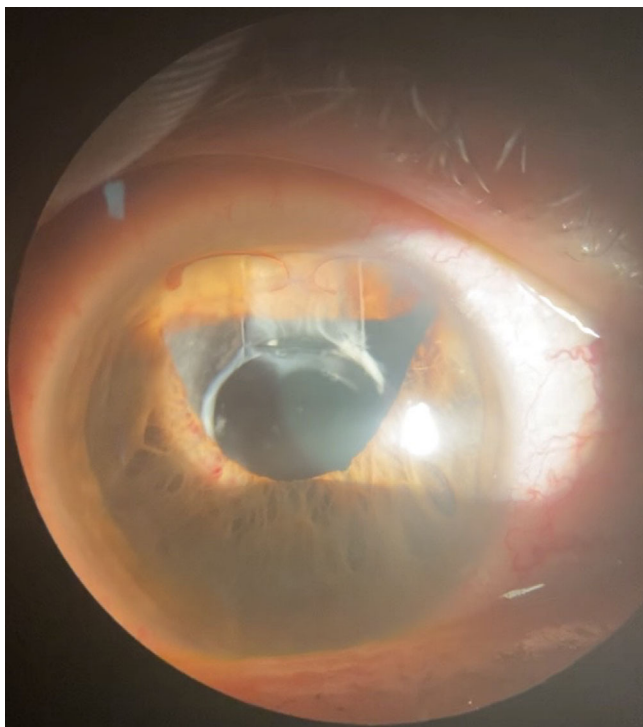


FIGURE 2 Slit lamp examination demonstrating an anteriorly dislocated intraocular lens captured within the pupil by the iris

urgent basis, particularly if concomitant ocular damage such as retinal tear or detachment, hyphema, or ruptured globe is suspected. Surgical repair is the preferred treatment for lens dislocation,³ and in the absence of additional traumatic ocular pathology, the overall prognosis for recovery of pre-morbid visual acuity remains favorable.⁴

REFERENCES

1. Olsen T. The incidence of retinal detachment after cataract surgery. *Open Ophthalmol J.* 2012;6(1):79-82.
2. Dabrowska-Kloda K, Kloda T, Boudiaf S, Jakobsson G, Stenevi U. Incidence and risk factors of late in-the-bag intraocular lens dislocation: evaluation of 140 eyes between 1992 and 2012. *J Cataract Refract Surg.* 2015;41(7):1376-1382.
3. Lee S, Hayward A, Bellamkonda V. Traumatic lens dislocation. *Int J Emerg Med.* 2015;8(1):16.
4. Artzen D, Samolov B, Lundström M, Montan P. Visual acuity and intraocular pressure after surgical management of late in-the-bag dislocation of intraocular lenses. A single-centre prospective study. *Eye.* 2019;34:1406-1412. <https://doi.org/10.1038/s41433-019-0668-8>

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