

Introduction

- Intraocular foreign bodies (IOFB) can cause harm by direct mechanical tissue damage, long-term toxicity such as metallosis, and increased risk of endophthalmitis, which ranges from 1.3-61%.¹
- Intraocular foreign bodies occur in 18-41% of ruptured globe injuries.² At least 92% of patients presenting with IOFB's are young men.²

Report: Case Presentation

- **History of Present Illness:** A 30-year-old male presented to the Wills Eye Emergency Room with right eye foreign body sensation after chopping wood with an axe. His past ocular history was significant for undergoing LASIK in both eyes four weeks prior.
- **Initial Exam:** Visual acuity was 20/20sc OU, and there was no rAPD and normal ocular pressures. Slit lamp examination of his right eye showed a LASIK flap in place with a temporal hinge and inferotemporal haze at the interface (**Figure 1**), a self-sealed 2-millimeter full-thickness superior paracentral corneal laceration inferior to the superior LASIK flap border which was seidel negative, a deep anterior chamber with 3+ pigmented cell, and a 1.8 mm x 1.1 mm metallic foreign body embedded in iris superonasally at 1 o'clock (**Figures 1**).
- **Gentle B-scan ultrasound:** no intraocular foreign body in the vitreous cavity or retinal detachment/opacities. Examination of his left eye was unremarkable.
- **CT orbits:** a subcentimeter metallic foreign body along the superior aspect of the right lens with associated right preseptal soft tissue swelling.

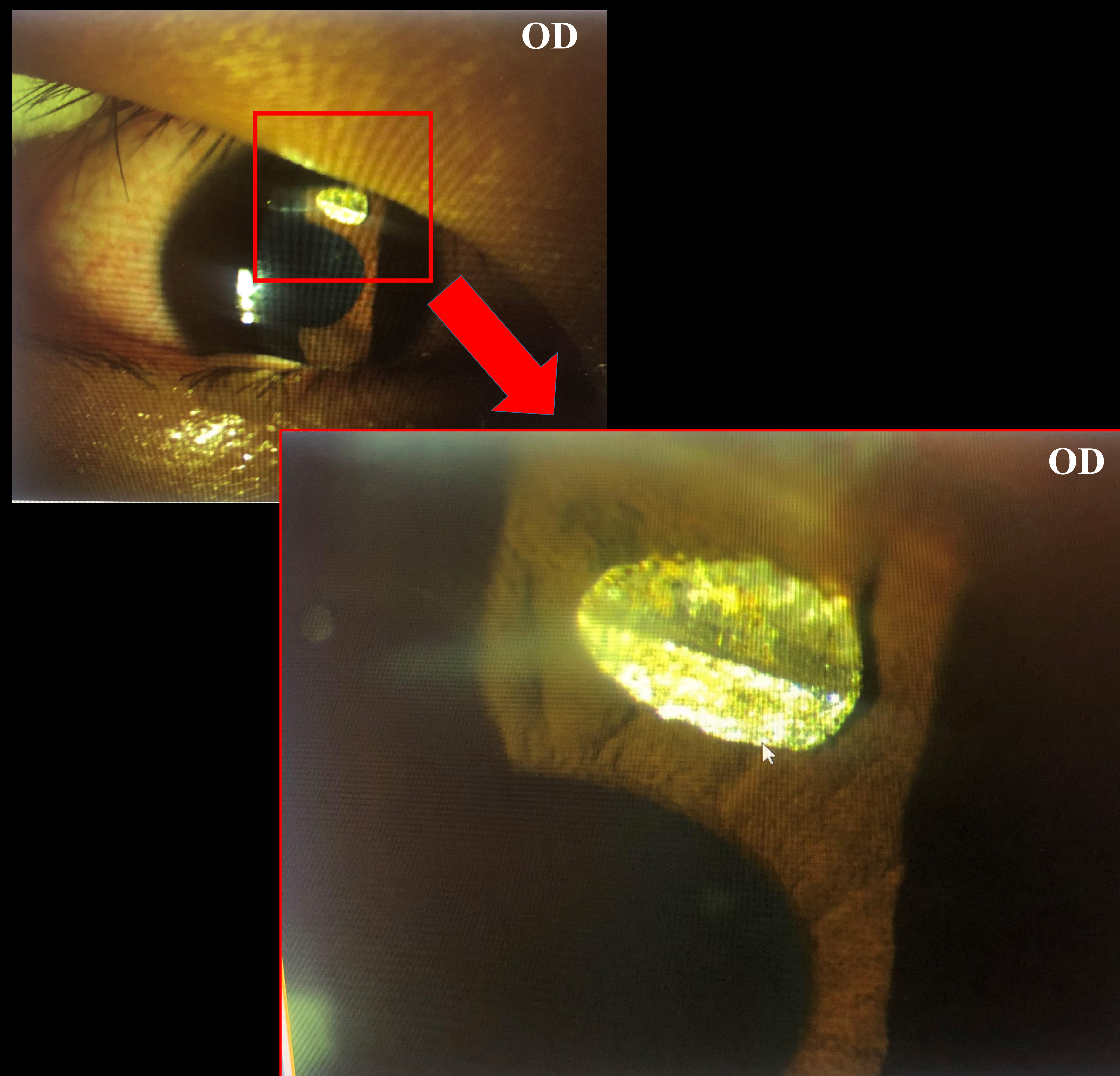


Figure 1. Right eye slit lamp photographs of temporal LASIK flap and metallic intraocular foreign body embedded in the superonasal iris and partially suspended in the anterior chamber

Report continued: Management

- The patient was given IV antibiotics and IM tetanus booster, then was taken to the OR for IOFB removal. The nail was removed using forceps through a temporal corneal incision and nylon sutures were used to repair the temporal incision as well as the corneal laceration. At the end of the case, intravitreal vancomycin, ceftazidime, and voriconazole were given due to risk of endophthalmitis.
- One month postoperatively, his right eye visual acuity was 20/20-2 without correction, his LASIK flap was in place, and there was no traumatic cataract or evidence of intraocular inflammation or infection.

Conclusion

- Greater mass of the foreign body, uveal prolapse, and location of the foreign body in the posterior segment, have been associated with worse outcomes in IOFB.^{3,4} Factors such as normal lens at presentation and location of the foreign body in the anterior chamber were associated with visual acuity outcomes better than 20/50.⁴
- A unique element of our patient's case was his recent LASIK four weeks prior to injury. A similar case was reported in 2002 at Wills Eye Hospital with a patient who had a full thickness corneal laceration involving the LASIK flap and an IOFB lodged in the superior iris.⁵ Similar to our patient, the patient in this case report had an excellent outcome, and the authors concluded that it was important not to manipulate or lift the LASIK flap during corneal laceration repair.

References

1. Waheed NK, Young LH. Intraocular foreign body related endophthalmitis. *Int Ophthalmol Clin* 2007;47:165-171.
2. Loporchio D, Mukkamala L, Gorukanti K, et al. Intraocular foreign bodies: A review. *Surv Ophthalmol* 2016;61:582-596.
3. Woodcock MGL, Scott RAH, Huntbach J, Kirkby GR. Mass and shape as factors in intraocular foreign body injuries. *Ophthalmology* 2006;113:2262-2269.
4. Ehlers JP, Kunimoto DY, Ittoop S, et al. Metallic intraocular foreign bodies: characteristics, interventions, and prognostic factors for visual outcome and globe survival. *Am J Ophthalmol* 2008;146:427-433.
5. Cosar CB, Rapuano CJ, Cohen EJ. Corneal laceration and intraocular foreign body in a post-LASIK eye. *Cornea* 2002;21:234-236.