

Management of Penetrating Eye Injury with Retained Intraocular Foreign Body in Prince Mutaib Bin Abdulazziz Trauma Centre/ Hospital, Saudi Arabia: A Case Report

Akinfe A.A, Isam Hussein Saber, Ariel P.C, Kishore S, Daini Akinkunmi, Akinfe F.A, Abegunade Fatima, Kayode Fasasi

Prince Mutaib Bin Abdulazziz Hospital (PMH), Sakaka Aljouf, Kingdom of Saudi Arabia

Corresponding author: Akinfe A.A. Email: akinwaleakinfe4@gmail.com

Introduction: Appropriate and adequate eye protection when performing visually threatening activities is the most effective method to prevent ocular trauma. The American Academy of Ophthalmology Eye Injury Snapshot is a yearly survey designed to collect data and educate the public about the causes and prevention of eye injuries¹. Through educational programs such as this, potential eye injuries may be prevented.¹ The aim of this report is to describe the management of a patient with penetrating retained intraocular foreign body.

Case Report: A 24-year-old female patient presented with 2-hour history of ocular injury. She was hit in the left eye by a nail while hammering it into a wall at home. This was associated with instant severe pain, redness, watering and reduction in vision. She was immediately rushed down to the emergency room of the trauma centre. She experienced left eye severe pain, reduction in vision, lid swelling, redness, foreign body sensation, watering, and orbital fullness. Evaluation at the emergency room revealed acutely traumatized lady with obvious left hyperemic lid swelling and protruding nail from the globe with subconjunctival hemorrhage (Figure 1). Examination with a bed side portable ER slit lamp device revealed left eye clear cornea, deep anterior chamber, nil hypheama, round and reactive pupil, clear lens, indirect ophthalmoscopy of the left eye also revealed anterior third of the metallic nail in the vitreous extending from the left medial pars plana. No obvious traumatic retina tear nor vitreous hemorrhage seen. The examination of the right eye was essentially normal with good vision. A diagnosis of left penetrating eye injury (with retained protruding nail) was made.

Urgent Operating room (OR) request was sent to schedule patient for urgent left eye foreign body (bracket nail) removal and globe repair under general anesthesia. Informed consent was obtained prior to surgery. Left eye conjunctiva exploration, foreign body removal and globe repair was done (Figure 2).

The visual acuity assessment of left eye post op revealed counting fingers at 3m at 1st day post operation. This however improved to 0.7 Logmar visual acuity by 3 days post operation.



Figure 1: Nail protruding from left globe

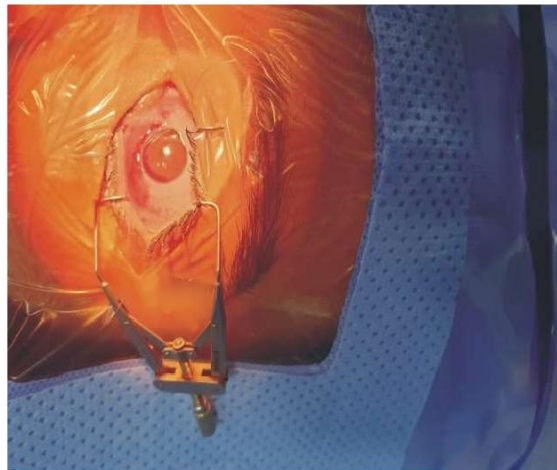


Figure 2: Immediate post-operative picture after removal of penetrating foreign body (bracket Nail)

Discussion: Ocular penetrating and perforating injuries (commonly referred to as open globe injuries) can result in severe vision loss or loss of the eye². Penetrating injuries by definition penetrate into the eye but not through and through—there is no exit wound² (this particular case has no exit wound). Perforating injuries have both entrance and exit wounds^{3,4}. Early

presentation, severity of injury, involvement of retina, macular prognosticate the outcome of the prompt review and repair⁵.

References

1. American Academy of Ophthalmology, The 6th Annual Eye Injury Snapshot Project.
2. Olurin O. Eye injuries in Nigeria. *Am J Ophthalmol.* 1971;72:159-166.
3. Ajayi BG, Osuntokun O. Perforating eye injuries in Ibadan. *West Afr J Med.* 1986;5:223-228.
4. Fong LP. Eye injuries in Victoria, Australia. *Med J Aust.* 1995;162:64-68.
5. Umeh RE, Umeh OC. Causes and visual outcome of childhood eye injuries in Nigeria. *Eye.* 1997;11:489-495.