

Considerations for a Retained Foreign Body in the Posterior Orbital Apex

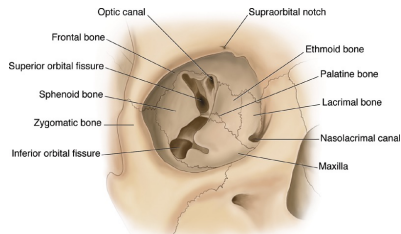
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Introduction

- Orbital foreign bodies must be approached with complex consideration regarding their precise location and composition in order to adequately guide management
- Physicians must carefully weigh the risks and benefits of surgical and medical intervention compared to conservative management
- If a foreign body is in the posterior orbit, surgical intervention itself may pose the risk of structural damage
- If such case is managed conservatively, regular monitoring for the development of an abscess or fistula from the intraocular foreign body must be performed



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Image: Hu S, Colley P. Surgical Orbital Anatomy. Seminars in Plastic Surgery. 2019 May;33(2):85-91. DOI: 10.1055/s-0039-1685476. PMID: 31037044, PMCID: PMC6498568

Case Presentation

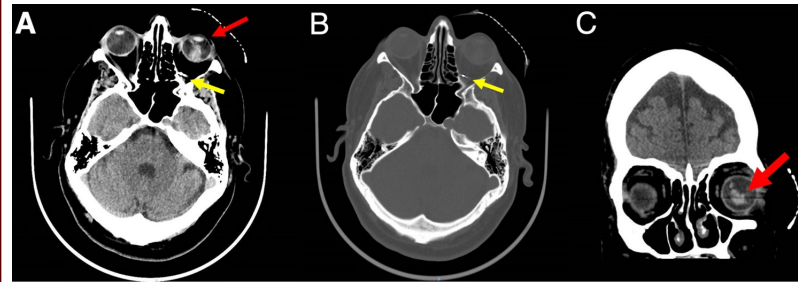


Figure 1: CT of orbits and brain without contrast in the axial (A and B) and coronal (C) planes from the emergency department demonstrating a penetrating open globe trauma (red arrows) along with an orbital foreign body near the orbital apex (yellow arrows)

- We present a case of a 51-year-old male patient with penetrating trauma to the eye that resulted in open globe injury and an orbital foreign body, presumed metallic, at the left posterior orbital apex near the optic nerve
- The patient believed that he had been hit by a bullet ball (BB) gun pellet
- His visual acuity was 20/50 in the right eye and hand motion in the left eye
- After globe repair, despite the uncertainty of the exact composition of the object near the orbital apex, the medical team, patient, and family agreed to conservative management given the object's high-risk anatomical location
- He was evaluated closely by retina specialists for intraocular complications secondary to the globe trauma, including the presence of proliferative vitreoretinopathy

Discussion

- Shared decision-making with the patient and family members is vital for reaching goals of care in these complicated cases
- It is important for patients to be aware of preventative interventions regarding trauma with an orbital foreign body, particularly patients who are young adults or children
- Parents of young children must ensure caution with children and projectiles, such as toy guns, dart guns, and BB guns. In industrial and sports settings, appropriate eye protection is paramount to minimize risk

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Disclosures: None for all authors