

Intraorbital Foreign Body- A Diagnostic Challenge

Jyoti Bhuyan¹, Ashwini Ghuge²

¹Professor, GMCH, Guwahati, Assam, India.

²Post Graduate Trainee, GMCH, Guwahati, Assam, India.

Corresponding Author: Ashwini Ghuge

ABSTRACT

A case report of a 20 year young male with history of RTA 12 days back complaining of loss of vision in L/E. Examination showed laceration over left upper eyelid, conjunctival chemosis, mid-dilated non reacting pupil and restriction of movements in all directions, vision in L/E being PL negative. Radiological investigations showed features suggestive of orbital cellulitis. On the basis of clinical suspicion an exploratory orbitotomy was done. 9 wooden pieces, along with a plastic piece were removed and wound was closed with a drain. There was no visual recovery.

Key words: Wooden foreign body, Orbital foreign body, Orbital cellulitis

INTRODUCTION

Retained intraorbital organic foreign bodies, particularly wooden, are commonly encountered in ophthalmological practice. These give rise to different types of clinical pictures and complications such as granuloma, orbital cellulitis, orbital abscess, osteomyelitis, periosteitis, or chronic fistula. Foreign bodies in these situations are usually occult because of their posterior location within the orbit and relative radiolucent property.^[1,2] Orbital foreign bodies lodged within the orbit create a risk of damage to surrounding structures, such as the extraocular muscles and cranial nerves.

The clinical outcome of Orbital foreign bodies depends on the severity of the inciting trauma, and the location and material of the FB. Visual loss typically occurs as a result of the initial injury and complications

CASE REPORT

- A 20 year old male presented with a history of RTA 10-12 days back with a lacerated wound over left upper eyelid, ocular pain and diminution of vision.

- On examination eye ball was found to be proptosed with a laceration over left upper eyelid measuring 50mm × 10mm.
- Ocular movements were restricted in all gazes.
- Conjunctiva was chemosed.
- There was no perception of light.
- Pupil was mid dilated non-reactive.
- Fundoscopy revealed optic disc pallor.
- Other eye was within normal limits.



Figure 1: Laceration over eyelid with discharge



Figure 2: Mid-dilated nonreactive pupil, conjunctival chemosis

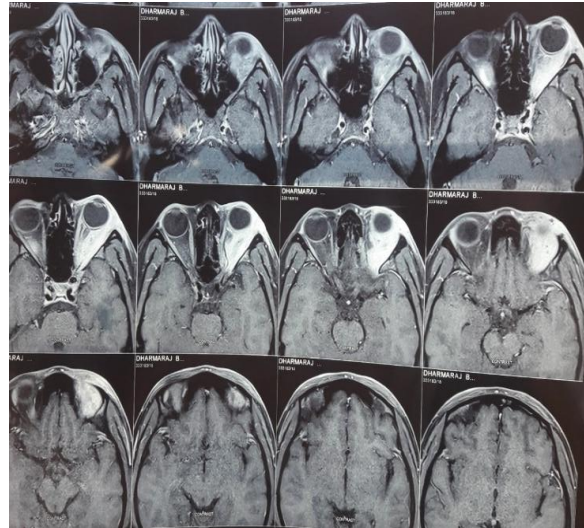


Figure 4: MRI showing orbital cellulitis

MATERIALS AND METHODS

- Routine blood investigations
- X-ray: No foreign body was detected
- CT Scan Brain: was suggestive of orbital emphysema and soft tissue swelling.
- MRI: revealed features suggestive of orbital cellulitis.
- X-Ray, CT scan, and MRI did not reveal the presence of any foreign body

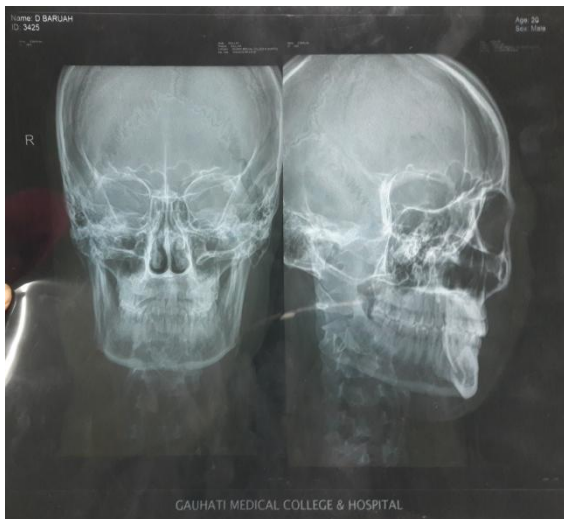


Figure 3: X-Ray orbit AP and Lateral view showing orbital emphysema

Management

- IV broad spectrum antibiotics.(inj Ceftriaxone 1gm IV BD)
- Systemic analgesic and anti-inflammatory drugs.
- Systemic antifungal therapy (infusion metronidazole 100ml TDS)
- Exploration under general anaesthesia was done.
- On exploration of wound, 9 wooden pieces along with a dirty plastic piece were removed. The longest piece measured around 2.5 cm.
- Thorough orbital irrigation was done.
- Wound was closed with a drain.
- Drain was removed after 24 hours.
- Patient was under antibiotic cover for 7 days post operatively



Figure 5: Wooden foreign body pieces along with a plastic piece



Figure 6: Post op day 5

DISCUSSION

- This patient presented with a laceration over left upper eyelid with orbital cellulitis.
- Wound of entry was large with purulent discharge giving rise to a suspicion of retained foreign body.
- Non-reactive mid-dilated pupil and disc pallor was due to increased IOP which was due to increased intra orbital pressure.
- After proper management with systemic antibiotics and surgical removal of foreign body, inflammation as well as proptosis gradually subsided.
- There was no visual recovery probably due to optic neuropathy.
- Patient was checked up to 15 days post operatively after which we lost him to follow up.
- Intra orbital foreign bodies often present a confusing clinical picture. Wooden foreign bodies are notorious as they are often not detected by standard diagnostic tests like X-ray, CT and MRI adding to the diagnostic dilemma.
- MR with T1W1 is more sensitive for detection of organic foreign bodies like wood and should be considered if CT is negative and clinical suspicion remains high. [5-7]
- Similar case of a 9 year old boy was reported by Agarwal et al in 1993 where

a 7 cm long wooden pencil was removed from a discharging sinus after 7 months of injury. [3]

- Another report of 32 year male patient with history of a road traffic accident had a mass over eyelid and was mistaken to be a styne, which later on exploration showed 2 wooden foreign bodies. [4]
- The presence of an intra orbital mass with a discharging sinus should evoke suspicion of a retained organic foreign body, regardless of the time interval between the trauma and current presentation. It is imperative to maintain a high index of suspicion in such cases to avoid misdiagnosis

CONCLUSION

Detection of intra orbital foreign bodies requires a high index of suspicion. Obtaining an accurate and detailed history as well as examination is absolutely essential. A CT scan of the orbit is the imaging modality of choice for detection and localization of the foreign body. Early diagnosis and surgical exploration and extraction, when indicated, greatly influence the final outcome and at times the visual prognosis.

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