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## Case Report

# Case report – Chronic intra-orbital foreign body

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### ABSTRACT

Intraocular or orbital foreign bodies when small or due to trivial trauma often go unnoticed or missed during examination especially a wooden foreign body. They can present as non-healing wounds and discharging fistulas with signs of chronic inflammation, cellulitis, foreign body granuloma or ocular complications such as corneal scars, traumatic cataract, hyphema, glaucoma, retinal tear and detachment. This case report highlights the importance of detailed history taking and proper diagnosis which plays an important role in the management of such cases.

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## 1. Introduction

Intra-orbital foreign bodies are the most common in the working population especially in young males due to more outdoor and agricultural activities and higher incidence of road traffic accidents. The incidence of intra-orbital foreign bodies in orbital trauma was found to be 2.9% in a series of 677 patients.<sup>1</sup> The type of foreign body is very important as the management differs depending on the diagnosis. Even with the currently available radio imaging modalities, it is difficult to pick up and determine the nature of the foreign bodies.<sup>2</sup> Organic foreign bodies are easily missed and are associated with the most devastating complications as they are a nidus for infection and inflammation. Here is a case report of a chronic wooden intraocular foreign body.

## 2. Case Report

A 48-year-old male presented with a nodular swelling in the right eye's upper lid for one year. The patient gave an alleged history of injury to the right eye while chopping a tree

trunk following which he developed swelling of the right eye with a lacerated wound in the upper lid. Primary care was given at a local hospital and the wound was sutured. 1 month later patient noticed a persistent localised swelling at the same site associated with mild pain and discharge for which he consulted another doctor and was diagnosed with burst chalazion. In view of the history of old trauma at the same site, the patient was advised wound exploration. Later incision and curettage was done. Again 2 months later patient noticed a recurrence of the swelling at the same place but he did not consult anywhere else for 10 months before presenting in our OPD.

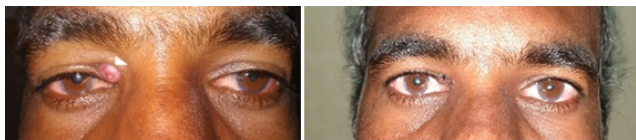
On examination, his visual acuity, anterior and posterior segment evaluation was normal. Extraocular movements were full and free. A nodular swelling was noted in the right eye upper lid on the medial one-third, about 2 mm above the medial canthus, measuring around 7-8mm in diameter associated with mild induration and erythema. There was a discharging sinus (Figure 1). On palpation, it was tender and firm to hard in consistency. There was no pre-auricular lymphadenopathy. A provisional diagnosis of residual intraorbital foreign body was made and was advised CT scan. A well-defined foreign body measuring 3.5 cm of

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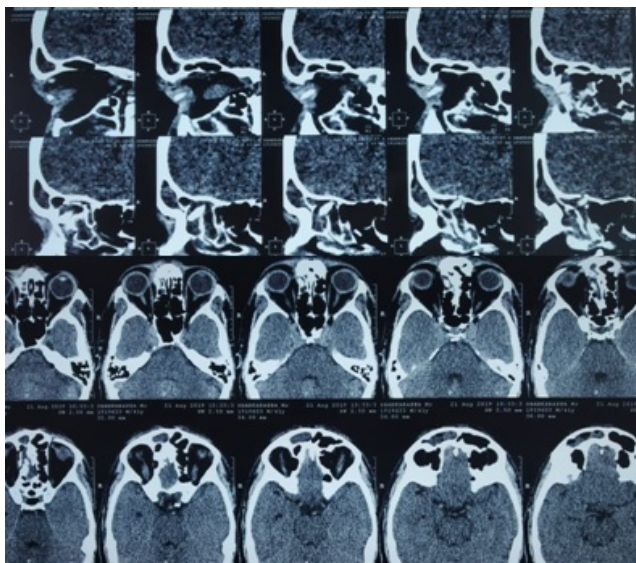
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plain CT value  $250\mu\text{U}$  was noted piercing through lamina papyracea and cribriform plate extending into olfactory fossa (Figure 2). The patient also underwent diagnostic nasal endoscopy from an otolaryngologist and neurosurgery opinion was taken. After getting clearance from these specialities patient was posted for intraorbital foreign body removal under general anaesthesia with neurosurgery backup.

During the surgery, the fistula wound was extended and with toothed forceps the foreign body was removed in toto. It was a linear wooden foreign body measuring 3 cm appearing like a piece of tree branch (Figure 3). The wound was further explored for any retained fragments. Cranial bone was examined which was found to be intact and there was no CSF leakage. The wound was closed with intermittent 6-0 vicryl sutures. The patient was started on systemic antibiotics and NSAIDs and the postoperative period was uneventful. On 1 week follow-up (Figure 1), the wound had healed well and there was no swelling or discharge. The patient was asymptomatic for 1 month postoperatively.



**Fig. 1:** Preoperative picture of foreign body granuloma in right upper lid with discharging fistula (arrowhead). On left – post operative picture



**Fig. 2:** Radio dense intra-orbital foreign body noted in sagittal and axial view of CT imaging



**Fig. 3:** Wooden foreign body after removal measuring 3 cm in length

### 3. Discussion

A wooden foreign body can remain undetected for a long time and the patient can present with complications like cellulitis, foreign body granuloma and chronic discharging fistula<sup>3</sup> as in our case. Many times, the foreign body is removed piecemeal and the residual fragment may result in late complications.<sup>3</sup>

In many such similar case reports, the foreign body was often undetected on CT scans as the radiodensity of the organic foreign body is variable and may be similar to the orbital tissue.<sup>4</sup> Under strong suspicion of intraorbital foreign body and a normal CT scan, MRI orbits can always be advised.<sup>4-6</sup> Few reports have also mentioned spontaneous extrusion of the foreign body,<sup>7</sup> fragmentation of the wooden foreign body on attempted removal and small self-sealing entry wound.<sup>1</sup>

In contrast, a metallic foreign body due to its inert nature can be observed regularly if not causing any complications.<sup>8,9</sup>

The aim of this report is to stress the need for detailed history taking, examination and proper diagnosis with appropriate radio imaging when there is a strong suspicion of an intraorbital foreign body. Despite many such cases reported and with advanced technologies, wooden or organic foreign bodies go undetected and as a consequence, many complications follow.

#### 4. Declaration of Patient Consent

The authors certify that they have obtained all appropriate patient consent forms. The patient has given consent for sharing images and clinical data to be reported in the journal. The patient understands that the patient's name will not be disclosed however anonymity cannot be guaranteed.

#### 5. Conflict of Interest

The authors declare no relevant conflict of interest with respect to research, authorship and or publication of this article

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