

A Forgotten Fronto-Orbital Foreign Body

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Abstract

Impaction of foreign bodies in the paranasal sinuses is unusual. We report the case of a 6-year-old male child who was brought to us with a non-resolving painful swelling in the medial wall of right orbit. Radiological investigations revealed it to be a metallic foreign body. A careful history from the child and his parents revealed an incident suggestive of trauma to that region one month before presentation.

INTRODUCTION

An otolaryngologist has to deal with foreign bodies at various sites in the head and neck including ear, nose, tracheo-bronchial tree, esophagus and paranasal sinuses. Amongst these sites the paranasal sinuses are comparatively rare with maxillary sinus as the most commonly involved sinus^{1,2,3}. Most of these foreign bodies result from high velocity/penetrating injuries⁴. Foreign bodies in the form of stone, glass particles, gunshot pellets and other foreign bodies have been reported in the fronto-orbital region^{5,6,7,8}. In most of the instances, the foreign bodies become apparent at the time of impaction and are removed immediately. The present case is reported because of the unusual presentation, as the foreign body remained unnoticed for a month before being removed.

CASE REPORT

A 6-year-old child was brought to us by his parents with presenting complaints of a painful, non-resolving swelling in the region of medial wall of right orbit of 20 days duration. The child has been receiving treatment in his village from a physician in the form of antibiotics since the past two months without any relief.

Examination revealed an afebrile child with a firm and tender swelling involving the upper medial wall of right orbit with a scar in the overlying skin (Figures 1 & 2).

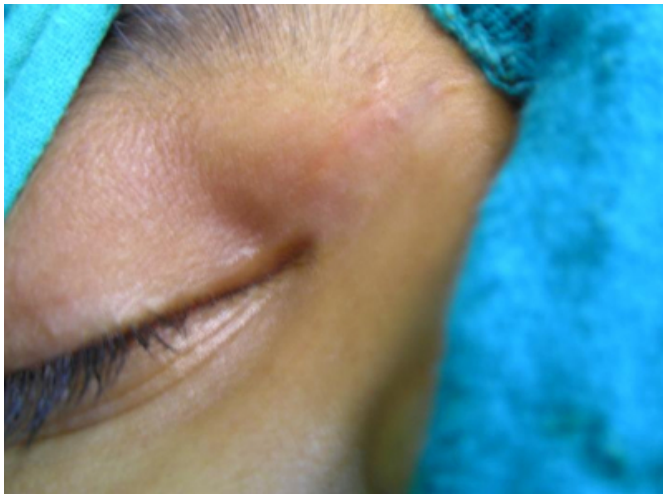
Figure 1

Figure 1: Showing right fronto-orbital swelling with scar.



Figure 2

Figure 2: Showing right fronto-orbital swelling with scar.



Rest of the otolaryngological examination revealed no abnormality. An X-ray of the skull in lateral view revealed a linear metallic foreign body in the fronto-orbital region (Figure 3).

Figure 3

Figure 3: X-ray skull showing a linear metallic foreign body.



A non-contrast CT-scan revealed a metallic foreign body in the right frontal sinus floor partly in the upper medial wall of right orbit (Figures 4 & 5).

Figure 4

Figure 4: NCCT scan (Coronal view) showing the frontal body in right fronto-orbital region.

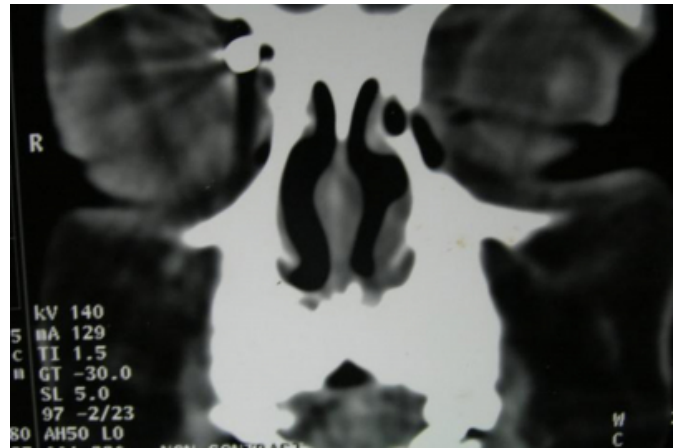


Figure 5

Figure 5: NCCT scan (Axial view) showing the frontal body in right fronto-orbital region.



A careful history from the parents of the child revealed that the child had a fall from stairs around a month back while he was holding a pen with a metallic tip. It was associated with an injury to the medial wall of right orbit for which the patient received treatment from a local practitioner at his village.

The foreign body was removed under general anaesthesia using a vertical skin incision over the foreign body (Figures 6 & 7).

Figure 6

Figure 6: Intra-operative photograph showing the foreign body.



Figure 7

Figure 7: Showing the removed foreign body (metallic tip of a pen).



The child is asymptomatic 4 months following the surgical removal of the foreign body.

DISCUSSION

Although fronto-orbital region is a common site for injuries during facial trauma, impaction of foreign bodies in this region is comparatively rare¹. Because of a subcutaneous location of the frontal bone, most of the foreign bodies impacted in this region are recognized early and are thus removed immediately following their impaction^{5,6}. Reports

of hidden, unrecognized foreign bodies have been scant^{4,9,10}. This is one such report.

Our patient presented with a painful orbital swelling as the only presenting complaint of the impacted foreign body. Whereas, in the previously reported cases, the patients had either been asymptomatic or presented with headache^{4,9,10}. The foreign body in our case was removed under general anaesthesia without any complication. The removal is usually easy and uncomplicated because of the readily accessible location of the frontal bone. Complications like a post-operative cerebrospinal fluid leak has been reported as a complication following surgery⁴.

In the end, we would like to emphasize the role of a careful history when dealing with such cases. An impacted foreign body should be kept in all such cases, especially those that do not respond to conventional management or have a history suggestive of trauma to that region.

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References

1. Graces SM, Norris CW. Unusual frontal sinus foreign body. *J Laryngol Otol* 1972; 86(12): 1265-68.
2. Thornell WC, Williams HL. Foreign body involving the floor of the orbit and the antrum. *Arch Otolaryngol* 1944; 38: 83.
3. Sinha SN. Foreign body (lead pencil) in the maxillary sinus. *J Laryngol Otol* 1968; 82: 473.
4. Agarwal AK, Passey JC, Sethi A. CSF leak following extraction of a long-standing fronto-orbital bullet: A case report. *The Internet Journal of Otorhinolaryngology* 2006; 4(2).
5. Gadre KCL, Odaya JD, Deshpande CK. Foreign body (stone) in the frontal sinus. *J Laryngol Otol* 1963; 77:146.
6. Onerci M, Ogretmenoglu O, Yilmaz T. Glass in the frontal sinus: report of three cases. *J Laryngol Otol* 1997; 111 (2): 156-8.
7. Gonul, et al. Tension pneumocephalus after frontal sinus gunshot wound. *Otolaryngol Head Neck Surg* 1998; 118 (4): 559-61.
8. Calhoun KH, Peters BR, Stiernberg CM, Quinn FB. Magnet extraction of frontal sinus foreign body. *Otolaryngol Head Neck Surg* 1988; 99 (1): 76-8.
9. Vishniakov VV, Lavrov SV. Chronic asymptomatic foreign body in the frontal sinus. *Vestn Otolaryngol* 1994; 1: 41-2.
10. Neterenko EG, Rabinovich ED. Long-term presence of a foreign body in the frontal cavity. *Zh Ushn Nos Gorl Bolezn* 1975; 5: 95-6.

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