Neglected Foreign Body Infratemporal Fossa, A Typical Presentation: A Case Report

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Abstract A 25 year old male presented to our ENT OPD with the history of hyperemic swelling left zygomatic area with a pointed pustule in the centre resembling a furuncle, which progressed into a discharging sinus, complicated by trismus. The patient had a past history of trauma in the vicinity of the left zygomatic area 4-months back with a pointed stick the tip of the stick which had got lodged in the wound at that time was removed. The diagnostic dilemma was solved as neglected foreign body infratemporal fossa.

Keywords Foreign body · Infratemporal fossa · Trismus

Introduction

The aero-digestive tract is the commonest site involved in foreign body lodgment in head and neck region, and topics dealing with this entity could be traced in standard texts of otorhinolaryngology and head and neck surgeries; however the lodgment of foreign-body in an area like infratemporal fossa is quite rare and only few cases have been reported in the literature so far. Our case is worth reporting for the rarity of site for foreign body lodgment and the atypical presentation of the case as a diagnostic dilemma.

Case History

A 25 yr old male presented to our ENT OPD with the history of hyperemic swelling left zygomatic area with a pointed pustule in the centre resembling a furuncle. The patient had a past history of trauma in the vicinity of the left zygomatic area 4-months back with a pointed stick the tip of the stick which had got lodged in the wound at that time was removed at the sub-district Hospital and wound closed under local anesthesia with patient having progressive recovery in the post operative period.

In view of the clinical appearance of the lesion and normal rest of general and ENT examination the patient was initially treated as a case of furunculosis on OPD basis however the patient reported back after 6-days only—ill looking with high grade fever, with a discharging sinus and increase in swelling in zygomatico-maxillary region, associated with pain and trismus and mouth opening less than 2 cm and had to be admitted for evaluation. The initial X-ray showed soft tissue edema. The routine base line investigations and investigations to rule out tubercular discharging sinus advised which were in accordance with acute inflammatory process rather than tuberculosis. Although the fever and pain responded to parenteral antibiotics and analgesics there was no improvement in trismus and the CT-scan was advised with an idea to rule out collection in facial compartment especially masseteric and pterygoid spaces. However, the CT-scan showed soft tissue edema and fracture of zygomatic arch and a well circumscribed hyperdense lesion about 20×7 mm in the region of the left infratemporal fossa, likely to be packing material or hematoma as per radiologists opinion (Fig. 1).

The patient was planned for exploration of the infratemporal fossa under general anesthesia, with the strongest possibility of infected bone sequestrum or neglected

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Fig. 1 CT-scan showing hyperdense lesion left infratemporal space

foreign body in view of the past history of trauma. On exploration of the infratemporal fossa using a pre-auricular approach, a wooden piece irregular 2×3 cm was removed from the infratemporal fossa (Fig. 2). The bed in which the foreign body was lodged was appreciably smooth probably the foreign body was walled off from the normal tissue by the normal inflammatory response of the body.

The patient had a progressive recovery in the postoperative period and the mouth opening improved to four fingers within 10 days in the post operative period and the check CT-scan done after 1 month confirmed the clearance of the field (Fig. 3).

Discussion

In most of the case reports pertaining to the foreign body infratemporal fossa the foreign body had found its way into the region following trauma and the main clinical symptom being trismus 1, 2. Keeping in view the other important organs like eye and brain in the immediate vicinity of the space and its potential communicating portals with these organs via the anatomical foraminae, the foreign body in such a location with its potential to cause inflammatory reaction and tendency to migrate is always a potential threat for causing serious complications like proptosis with threat to vision and various intracranial complication 3.

The unique feature to our case is the false sense of security by removing of the part of the foreign body at the time of initial presentation and the subsequent delayed presentation by the remaining neglected part as a diagnostic dilemma compounded by the radiolucent nature of the foreign body 4, 5.

Fig. 2 Foreign body wooden bone chip removed from infratemporal fossa pre-auricular approach

Fig. 3 Check CT-scan of the patient after the removal of the foreign body infratemporal space

The smooth bed and the discharging sinus tract was indirect evidence in favour of the tendency of the foreign body to migrate to exterior through the initial wound tract in this case 6.

Conclusion

This case is instructive on several levels. Foreign bodies should be considered in the differential diagnosis of trismus, especially in patients with recent past history of trauma in the region and the possibility of missing some parts of foreign body during the initial emergency salvage procedures for such cases of trauma; and the nature of foreign body are key factors dictating the approach to such cases and the role of CT-scan is indispensable in such cases where the foreign bodies as in over case cannot be picked up by the routine X-rays.

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