Foreign Body In Temporomandibular Joint Region

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Abstract

Foreign bodies encountered in head and neck region can be potentially dangerous. Difficulty in removal is encountered due to the complex anatomy. Various imaging methods aid in the assessment of the exact location. This has been described here in a case of foreign body lodged in Temporomandibular Joint (TMJ). Going through the literature, it was not found any similar case and the uniqueness of the trauma and site brings us to describe this case report. It is presented here a 17 year old man with an accidental insertion of sharp metallic foreign body in the pre-auricular region which was lodged into the temporomandibular joint. The foreign body was located by Computed Tomography scan of the face and successfully removed by exploring the Temporomandibular Joint area (TMJ).

Keywords: Foreign body; Temporomandibular joint

Introduction

Foreign bodies are frequently encountered by otolaryngologists even then, they can represent a challenge for the surgeons due to several factors, such as object size, accessibility difficulties and a close anatomic relation with vital structures [1]. Usually, they are a consequence of accidents. Foreign bodies lodged accidently through external trauma pose a danger of injury to vital structures on the face. Their removal also requires a meticulous dissection so as to avoid injury to important anatomical structures of the face. The removal of foreign bodies occurs in approximately one third of the cases, because initially they are radiologically missed or misdiagnosed [2]. Occasionally, foreign bodies may be retained for some time causing persistent and distressing symptoms [3]. There are several ways to detect foreign bodies: radiographies, computed tomography, magnetic resonance and even ultrasonographies can be used depending on the foreign body localization and composition [4,5]. Facial surgical procedures implies a risk of damaging important anatomic structures. Even if the exact position of the foreign body is known from imaging data, the accurate reproduction of this position in the patient body can be difficult if this object is not adjacent to a definitive anatomic landmark.

A rare case of a foreign body lodged accidently in the temporomandibular joint (TMJ) has been presented

Case Report

A 17 year old male patient was presented to the department of otolarnology. JJ Hospital, Byculla, Mumbai with history of accidental insertion of a metallic foreign body in right postauricular region. Patient had major complaint of pain over the right postauricular region and trismus.

On observation, tenderness was found over the right post auricular region with an entry wound at angle of mandible, externally clinically the foreign body could not be located by palpation. Plain radiograph of the face in apical and lateral view revealed foreign body over the right TMJ. The CT scan of the face revealed a 2.1 cm long sharp metallic foreign body lodged into the Right Temporomandibular joint 8mm deep to the skin surface lying parallel along the angle of mandible (Figure 1-3).

The patient was posted for surgery. He was taken under general anaesthesia. A 2 cm incision was taken along the angle of mandible from the ear lobule downwards. A small flap was raised anteriorly and dissection done. The metallic foreign body being compatible with a needle was exposed. It was removed with careful dissection around the body and securing hemostasis and avoiding any injury to the facial nerve. The wound was thoroughly washed with antiseptic and closed, in layers. The post operation period was unremarkable and patient was discharged after 24 h of observation.

Discussion

This was an unusual foreign body being lodged accidentally from entry through angle of mandible below the EAC and into the TMJ. The important anatomical structures, facial nerve and major vessels

Figure 1: Axial CT of face showing foreign body in right TMJ region.
A foreign body can remain asymptomatic for a long time and, despite this, it may lie over an important neural or vascular structure and pulling out it may cause fatal complications. The treatment for first stage of a trauma patient consists in an adequate antisepsis of the lacerated and contused tissues. This evaluation must be corroborated by image exams, such as radiograph, computed tomography with axial and coronal projections, when necessary. The treatment sequence involved approach, foreign body withdrawal, wound exploration, irrigation and suturing. Regarding wound contamination, antibiotics and tetanus prophylaxis was given. The treatment for the second stage of trauma patient consists in surgical removal. If the object is removed suddenly during surgery it is important to identify the location of foreign body by appropriate investigations before deciding upon the plan for removal as it may lie over an important neural or vascular structure and pulling out of foreign body without adequate exposure of foreign body may lead to fatal complications.

Conclusion

This is a rare case of foreign body lodged in temporomandibular joint. Precise knowledge about the regional anatomy is essential to prevent injury to the vital structures in the area during foreign body removal. It is important to identify the location of foreign body by appropriate investigations before deciding upon the plan for removal as it may lie over an important neural or vascular structure and pulling out of foreign body without adequate exposure of foreign body may lead to fatal complications.

References