An Unusual Case of Teeth in Neck: An Interesting Case Report

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Abstract

Foreign bodies of neck are a common occurrence after trauma and road traffic accidents. Foreign bodies can get lodged in the neck especially after open wound. These could range from a piece of glass, wood, pebble pieces, or the part of tool used for trauma. We report a case of an unusual foreign body in the neck. Posttrauma, patient had mandibular fracture with dislodgement of teeth in the neck masquerading as foreign body. Patient required surgical intervention for removal of teeth from the neck via an external incision and recovered uneventfully. The aim of the article was to highlight the importance of complete clinical and radiological examination in a patient of trauma. Missing teeth especially in cases of mandibular fracture must be searched for carefully.

Keywords

- mandibular fracture
- teeth in neck
- facial fracture
- displaced molars
- foreign body neck

Introduction

The head and neck and the face in particular are usually exposed to the external environment. Therefore, injuries to these regions are common and carry a higher risk of foreign body contamination, compared with other (usually clothed) body parts.[1] Imaging studies can significantly increase the chance of detecting a foreign body. They can also aid in surgical planning by precisely determining the anatomical location of the foreign object and its spatial relation to neighboring structures, thereby reducing the risk of collateral damage.[2] Here, we report a case of an unusual foreign body in the neck. Posttrauma, patient had mandibular fracture with dislodgement of teeth in the neck masquerading as foreign body. Patient required surgical intervention for removal of teeth from the neck via an external incision and recovered uneventfully.

Case Report

A 28-year-old patient presented to the ear, nose, and throat emergency with complaints of nasal bleeding post-road traffic accident. On general examination, patient was conscious and oriented. On local examination, there was gross swelling of the right side of the face with a lacerated wound of 2.5 cm × 1.5 cm × 0.5 cm extending from the right ala of the nose to the upper lip. Also, tenderness was present on the right side of the zygomatic bone and temporomandibular joint. On examination of the nose, there was a depressed nasal bone fracture associated with edema and tenderness. There was profuse active nasal bleed for which anterior nasal packing was done.

On examination of oral cavity, mouth opening was painful and reduced, only one finger could be passed. There was tenderness on the right side of the mandible with no active oral bleed. Laceration of 2 × 2 cm on the right side of the buccal mucosa could be seen. Floor of the mouth, gingivobuccal sulcus, tongue, and oropharynx were found to be normal. Note that 7th/8th lower tooth on the right side were missing and a dental referral was sought to confirm the same.

Eye examination showed subconjunctival hemorrhage on the right side with bilateral periorbital ecchymosis for which ophthalmology referral was sought. The eye movements and vision were found to be normal.

In view of polytrauma injuries, noncontrast computed tomography (NCCT) face and neck with three-dimensional

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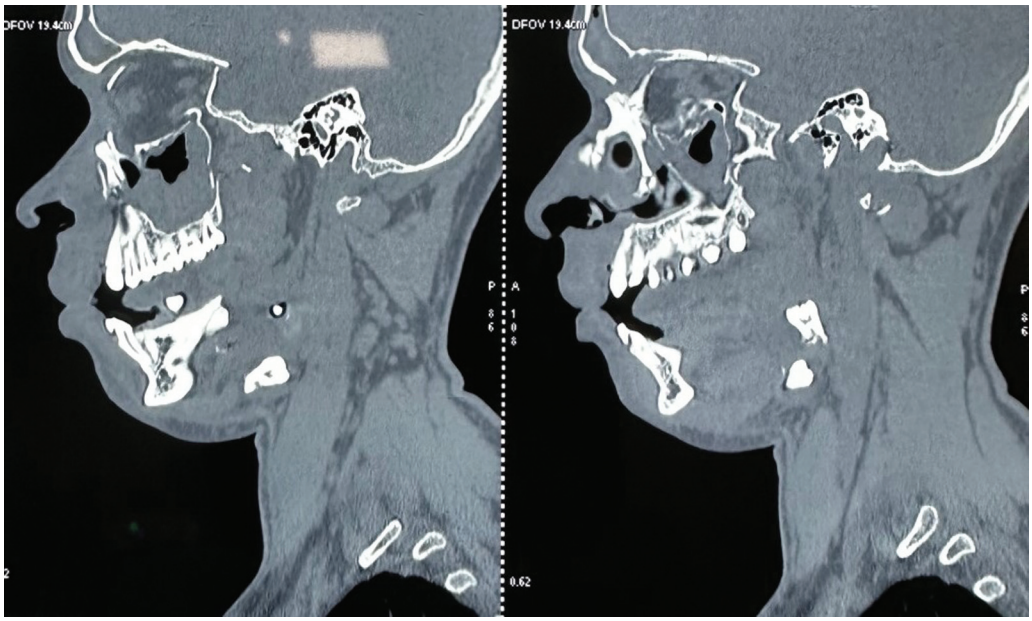

Fig. 1 Computed tomography (CT) scan showing dislodged teeth in the submandibular region.

(3D) reconstruction was done which showed Le Fort type 1 and 2 facial fractures on the right side with Le Fort type 1 facial fracture on the left side. Comminuted fractures of the nasal bones and frontal process of maxilla on the right side were also seen. Further, displaced fracture with overriding of fractured bone fragments involving the body of mandible on the right side was seen. Second and third mandibular molars along with dentoalveolar fragment were found to be completely dislocated and were seen lying in the submandibular fossa closely abutting the submandibular gland and glossotonsillar sulcus on the right side (►**Fig. 1**).

NCCT head revealed left parietal hemorrhagic contusion for which neurosurgery referral was sought.

Based on the radiological findings, a diagnosis of foreign body neck (displaced teeth due to mandibular fracture) was made.

After taking informed consent from the patient and clearance from neurosurgery side, the patient was taken under general anesthesia for removal of foreign body. The incision in the neck was given two fingers breath below the angle of mandible to preserve injury to marginal mandibular nerve. The subplatysmal flap was elevated and the submandibular gland was exposed. The displaced tooth was found posteriorly and inferiorly to the submandibular gland, another molar was found close to the hyoid bone (►**Fig. 2**). Both the teeth were removed without any neurovascular injuries in the neck. Neck wound was closed and patient recovered uneventfully.

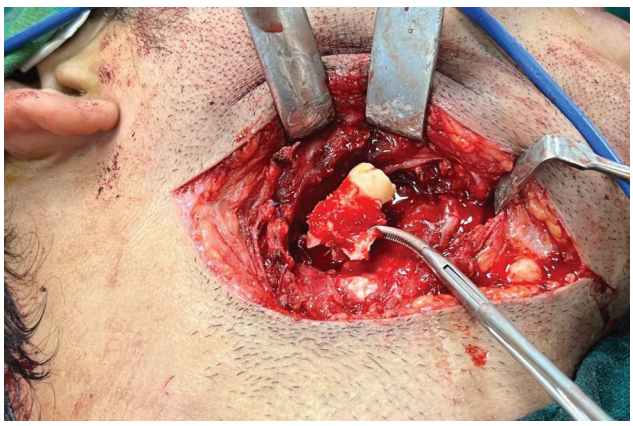

Fig. 2 Intraoperative photo.

Discussion

Dentoalveolar injury either in isolation or associated with other facial fracture such as zygomatic bone fracture or Le Fort 1 fracture is prone to avulsion and displacement of teeth in adjacent structures, such as the soft tissue, maxillary antrum, nasal cavity, and respiratory tract. Such displaced teeth can be accidentally swallowed or spit out by the patient. One case involved displacement of the mandibular lateral incisor into the nasal floor after panfacial fractures.[3]

A thorough investigation of the patient's medical history and clinical examination are the first and crucial steps in the workup. It is important to collect information on the trauma mechanism and, if applicable, the exact nature of involved objects.

CT scanning is considered the gold standard in foreign body imaging.[4] Compared with conventional X-ray techniques, cross-sectional CT images improve detectability and allow for precise anatomic localization of foreign body materials. Furthermore, a 3D CT can be used with intraoperative navigation systems in order to facilitate surgical removal.[5]

Teeth or their fragments that get embedded in the soft tissues may behave as foreign bodies resulting in a discharging sinus tract, dehiscence of the wound, or a disfiguring fibrosis.[6] But sometimes the complications can

be even worse. Their aspiration into lung can lead to laryngeal edema or pneumothorax as immediate complication. These can be easily missed in polytrauma patients due to reduced mouth opening and suboptimal examination. Minor fragments of teeth can be missed radiologically as well. In a case report by Shah et al, a patient presented with ill-defined firm, mildly tender, nonsuppurative, submental swelling unresponsive to medication. He had undergone a polytrauma involving his face 2 months back. An orthopantomogram was ordered which showed a lower central incisor from the fracture site had slipped through the fracture gap into the submental space possibly missed by the CT scan which was then removed.[7]

Conclusion

We want to highlight the importance of a complete and thorough clinical examination and radiological examination in all patients of polytrauma. In patients with maxillary/mandibular fractures teeth count must be done and history must be taken for any missing teeth. Usually, these patients present with reduced mouth opening thereby making oral examination difficult. In such cases, radiological studies are of great help. Therefore, all maxillofacial surgeons and otorhinolaryngologists must pay attention to missing teeth reported in such cases.

Authors' Contributions
S.T. contributed to the concept and design of the manuscript, while V.W. focused on reviewing it. D.B. was responsible for the collection of data, and M.S. handled the interpretation of the data.

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Conflict of Interest
None declared.

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