Unusual Presence of Lateral Incisor: Misplaced or Displaced?

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ABSTRACT
Misplacement or displacement of teeth is seen very commonly in the dental practice. Displacement is always associated with the underlying trauma factor and the tooth in question is almost always accompanied by pulpal necrosis along with periapical and periodontal pathology. The present case though looks very simple in its presentation and treatment plan; it refuses to fit into the usual format and sequelae of a traumatized tooth. Thus it leaves us plenty of room to think in terms of the wide possibilities of outcome with the similar stimulus or impact on different individuals.

KEY WORDS: Displaced tooth, Trauma

INTRODUCTION
Misplacement of teeth is not uncommon or unusual. In the present dental terminology it is better known as the malaligned teeth or tooth causing malocclusion. Several studies and numerous treatment modalities have been suggested and practiced for the management of the same.1

Displacement and avulsion are common findings with regard to trauma to the maxillofacial region. Injury to primary teeth more often results in displacement of teeth rather than fractures.2 Whereas in the permanent dentition in case of trauma a tooth or its fragment may displace anteriorly, posteriorly, or vertically according to the impact energy and direction of the causal agent, as well as the location of the injury and the support structure of the involved tooth. Most traumatic injuries often involve the anterior maxilla.3 There have been many reports of tooth fragments embedded in soft tissue accompanying a tooth fracture. Furthermore, displacement of teeth most often involves the central and lateral incisors, while the canines are rarely involved.4–6

Apart from misplaced and displaced teeth, ectopic eruption of teeth also could be the reason for unusual placement of teeth. In ectopic eruptions the permanent teeth assume a path of eruption that intercepts a primary tooth, causes its premature loss and produces a consequent malposition of the permanent tooth itself.7 Most of the times the ectopic eruption is also associated with supernumerary teeth.8

CASE REPORT
An 11-year-old boy from rural background reported to the Dental O.P.D. of Kanti Children’s Hospital, Maharajgunj Kathmandu with the complaint of discomfort to the under surface of the tongue while eating food and during speech. On clinical examination, on the floor of the mouth sharp incisal edge was evident towards the left side. Upon thorough examination both lateral incisor and canine on the left side were absent confirming the tooth on the floor of the mouth to be left lateral incisor.

After thorough history taking it was found out that he had sustained an episode of sibling assault at the age of 6 which resulted in mild bleeding from the mouth followed by uneventful healing within a couple of days. There were no other episodes of trauma or whatsoever with regards to the patient.
Upon careful palpation, it was found that the tooth was planted on the soft tissue at the floor of the mouth along with a thick band of calculus. Though the tooth was in the close relation to the vital structures such as lingual vein and sublingual salivary duct, it did not seem to perforate or infiltrate into the vital lingual structures. Vitality test was also performed using the Electric Pulp Tester and the response showed the tooth to be vital.9

On the basis of these findings, the traumatizing tooth was undertaken for closed extraction. The extracted specimen confirmed the tooth in question as lateral incisor with root formation completed to 2/3 of its actual length. The extraction resulted in minimal bleeding and considering the size of the wound no suture was placed.

DISCUSSION

The findings related to the case could lead us to a number of possibilities. Usually in cases of trauma the directed force is sufficient to overcome the bond between the affected tooth and the periodontal ligament within the cradling alveolar socket. Displacement may be in the form of subluxation, intrusion into the alveolar socket or extrusion from the socket with tearing of the apical neurovascular bundle. All of these forces may lead to pulp necrosis and apical abscess formation.10 The present case did not follow this usual pattern. Moreover if the tooth was displaced and iatrogenically planted on the soft tissue the fact that it could remain vital for such a long time is very unusual. Normally, the maxilla and mandible receive not only the centrifugal blood from the alveolar arteries, but also the centripetal blood from the surrounding mucoperiosteum. This not only forms the basis for jaw surgeries, but also stands as the widely accepted factor in terms of supplying the tooth and maintaining its vitality.11 The sublingual soft tissues and the floor of the mouth on the other hand are associated with rich vascularity via multiple cross linking vasculature including the perforators. 12 Owing to these facts since the tooth was planted clinically on the highly vascularized sublingual soft tissues the possibility of this vascularity attributing to the vitality of the tooth cannot be ruled out.

Secondly, at the time of trauma i.e. at 6 years of age root formation cannot reach to its 2/3 level.13 That clearly shows even in the displaced state root
formation was propagating to certain extent. There is a possibility that because the tooth is vital, root formation is also propagated in spite of the tooth not being in the dental arch.

The presence of canine on the right side but the absence of it on the left side leads to the suspicion of the left sided canine being traumatized or avulsed during the same assault, which needs radiographs for confirmation.

CONCLUSION

Following the true essence of the popular saying in the field of medicine “Every case is a new case”. This is why time spent in meticulous history taking and doing needful assessment can act like an investment not only for delivering the best treatment but also in broadening our views in thinking out of the box while dealing with certain cases. The present case though undertaken for a simple treatment plan, it definitely leaves enough of room to ponder on the possibilities of adaptations a traumatized tooth can undergo.

REFERENCES


