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Case report

Inverted eruption of supernumerary tooth in the anterior maxilla- report of a rare case

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ABSTRACT

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Inverted teeth have been reported in both maxilla and mandible and most of them are inverted impacted third molars and premolars. However, very few cases of intraoral inverted tooth eruption have been reported till date. A unique case of inverted supernumerary teeth between the central and lateral incisors in the maxilla is reported here.

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1. Introduction

Eruption of an inverted tooth is a rare condition (Jacobs R et al 2003). Inverted tooth is where crown pointing downwards, root apex pointing toward the alveolar crest (Vinaya Pai et al 2008). Supernumerary teeth are a relatively frequent disorder of odontogenesis characterized by an excess number of teeth, with mesiodens being the most frequent (Gallas MM et al 2000). It is the one of the most significant dental anomalies during the primary and early mixed dentition. The frequency of inverted mesiodens constitutes to approximately 9–67% of all reported cases (Ebru Canoglu et al 2009). But very few cases of inverted supernumerary teeth between central and lateral incisors in maxilla have been reported.

2. Case report

A 56 year old male patient reported to the department of Oral Medicine and Radiology with the complaint of missing teeth in the lower and upper right and left back tooth region. On examination, missing teeth noticed in the mandibular and maxillary right and left posterior region. Generalised periodontitis was also observed. The right and left maxillary anteriors were mobile. Clinically, the root apex of supernumerary tooth was noticed palatally between the right central and lateral incisor (Fig. 1). The tooth was neither mobile nor symptomatic. Family history was non-contributory. Intra oral periapical radiograph of the region revealed an inverted supernumerary tooth superimposed on the right lateral incisor with the crown facing upward and the root apex facing towards incisal surface (Fig. 2). Vertical bone loss was noted. Considering the poor prognosis of the inverted supernumerary tooth due to the compromised periodontal status, patient was referred to department of Oral and Maxillofacial Surgery for extraction and later to the department of Prosthodontics for replacement of missing teeth with complete removable denture.

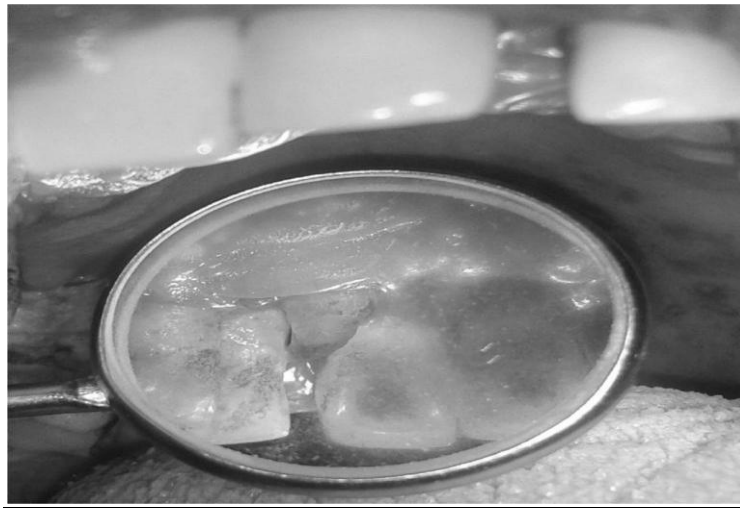


Fig. 1. Root apex of an inverted supernumerary tooth placed palatally between right central and lateral incisor.



Fig. 2. Intraoral periapical radiograph showing inverted supernumerary tooth superimposed on the right lateral incisor.

3. Discussion

Developmental dental anomalies generally manifest as a variation in tooth size, shape, number, or structure. Supernumerary teeth are considered as one of the most significant dental anomalies. Supernumerary teeth are those that exceed the normal dental formula. Several terms have been used to describe supernumerary teeth, depending upon their location. A supernumerary tooth in the maxillary anterior region is termed as the mesiodens; an accessory fourth molar is often called a distomolar or distodens. A posterior supernumerary tooth situated lingually or buccally to a molar tooth is termed a paramolar (Neville Brad W et al 2008). Multiple supernumerary teeth are frequently associated with various craniofacial anomalies including cleft lip and palate, Gardner's syndrome, and cleidocranial dysostosis (Ebru Canoglu et al 2009, Neville Brad W et al 2008, Hakan Avsever et al 2012).

Inversion has been defined as 'the malposition of a tooth in which the tooth has reversed and is positioned upside down' (Ulusoy AT et al 2009). Inverted teeth have been reported in both maxilla and mandible, and most of them are inverted impacted third molars and premolars. In our case there was eruption of inverted supernumerary tooth in the anterior maxilla between central and lateral incisors which is very rare. Although inverted impacted teeth may remain in position for years without clinical manifestations as seen in our case and may be detected in radiographic examinations incidentally, many complications including delayed or ectopic eruption, crowding, diastema, eruption into the nasal floor, resorption of the adjacent root and development of a dentigerous or primordial cysts (Ulusoy AT et al 2009).

Eruption of inverted teeth is extremely rare, but has been described for incisors and premolars. Inverted eruption may be observed as the appearance of the root apex in the alveolar arch or the perforation of the crown through the inferior cortical plate of the mandible (Hakan Avsever et al 2012).

Panoramic maxillary, occlusal, and periapical radiographs are essential in the diagnosis of impacted supernumerary teeth. The identification of the path of eruption (normal, inverted, or horizontal) and the location (palatal or labial, superior or inferior) of the impacted supernumerary teeth, relative to adjacent structures, help to formulate an appropriate treatment plan (Jafri SAH et al 2011).

Supernumerary teeth also predispose the area to subacute pericoronitis, gingivitis, periodontitis, and abscess formation. In selected cases, clinical judgment may not dictate surgical removal, or patient resistance to therapy may be present. In these instances regular monitoring is appropriate (Neville Brad W et al 2008). The clinical complications of mesiodens include delayed eruption of permanent incisors, midline diastema, axial rotation, or inclination of erupted permanent incisors, resorption of roots of adjacent teeth, root anomaly, cyst formation, and intra-oral infection (Gunduz K et al 2008, Kim SG et al 2003).

Early diagnosis and treatment are required to prevent complications and orthodontic requirement. Supernumerary teeth should be extracted immediately if any of the above cited complications are present.

4. Conclusion

Many case reports of inverted teeth involving mandibular third molars and premolars have been reported. But most of them are impacted. Only few case reports of erupted and inverted supernumerary tooth have been found in the literature. Herein we have presented an extremely rare case of eruption of inverted supernumerary tooth between the central and lateral incisors in maxilla.

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