

Inverted impacted mesiodens – An incidental radiographic finding

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Abstract

Impacted tooth is one of the most common diagnoses done during routine dental check-up, especially the third molars in the teenagers and impacted permanent teeth in children during mixed dentition period. But inverted impacted tooth are rare findings. Herewith we are reporting a case of inverted impacted mesiodens, which was an incidental finding during routine dental radiography.

Keywords: Inverted tooth, Impacted tooth, Mesiodens.

Introduction

Supernumerary teeth are a relatively frequent disorder of odontogenesis characterized by an excess number of teeth. Mesiodens is the most common type of supernumerary tooth found in the premaxilla between the two central incisors. Both dentitions can get affected.⁽¹⁾ If the crown is pointing downwards and root apex is facing the alveolar crest, then it is termed as inverted.⁽²⁾ The frequency of inverted mesiodens constitutes to approximately 9–67% of all reported cases.⁽³⁾ The etiology of inverted mesiodens is still unknown. The complications associated with inverted mesiodens include eruption disturbance of adjacent teeth, displacement & rotation of the central incisors, diastema, cyst formation or nasal eruption of the mesiodens. Early detection and timely surgical intervention of inverted mesiodens is crucial to prevent unwanted consequences. In the existing literature, there is no specific time for the removal of inverted supernumerary tooth.⁽⁴⁾

Case Report

A 26 year old male patient reported to the Department of Oral Medicine and Radiology, Century International Institute of Dental Science and Research Centre, Poinachi, India; with the complaint of discolored tooth in the upper front region since 5 years. Patient gives history of trauma in the same region. On examination, discolored tooth in respect to right central incisor was observed. No other changes noticed intra-orally. Intra oral periapical radiograph of the maxillary anterior region revealed obliteration of the pulp canal in right central incisor. An inverted impacted supernumerary tooth noticed apically to the right central incisor superimposing at the apical one third of the root. [Fig. 1] Vitality test (electric pulp tester) in relation to right maxillary central incisor was advised which revealed that the tooth was non-vital. The patient was referred to Department of Conservative and endodontics for root canal treatment of maxillary right

central incisor. As the patient was asymptomatic, he was kept under periodic observation. The patient was informed about the associated complications of impacted supernumerary tooth and no treatment was done for the same.



Fig. 1: Intraoral periapical radiograph showing an inverted impacted supernumerary tooth apically to the right central incisor superimposing at the apical one third of the root

Discussion

The most frequent disorder of tooth formation is supernumerary teeth that is, the presence of extra tooth. Mesiodens is the most common among them.⁽⁵⁾ It can be seen in either of the dentitions. Depending upon the location of supernumerary teeth, various terms have been described such as mesiodens a supernumerary tooth in the maxillary anterior region maxillary; distomolar, distal to the third molar and paramolar, adjacent to the molars.^(1,6) syndromes associated with multiple supernumerary teeth are cleft lip and palate, Gardner's syndrome, and cleidocranial dysostosis.^(1,3,6) In the present case, it was an incidental finding and not associated with any syndromes.

Inversion has been defined as 'the malposition of a tooth in which the tooth has reversed and is positioned upside down'.⁽⁷⁾ Third molars and premolars contribute

to most of the impacted inverted teeth in both maxilla and mandible. The frequency of inverted mesiodens constitutes to approximately 9–67% of all reported cases.⁽³⁾ We are reporting a case of inverted mesiodens which was impacted and it was an accidental observation.

Most of the cases of impacted supernumerary tooth, it's asymptomatic as in our case too. We can see the impacted tooth for many years without any changes or associated with no complications. Majority of cases is an incidental finding during routine dental radiographs. But complications do occur such as ectopic or delayed eruption, crowding, diastema, eruption into the nasal floor, resorption of the adjacent root and development of a dentigerous or primordial cysts.⁽⁷⁾

Intraoral radiographs like periapical and occlusal; extra-oral radiographs like panoramic guide us for appropriate diagnosis and its better management. These radiographic aids help clinical about its path of eruption and its location relative to the adjacent structures finally helping in the formulation of proper treatment plan.⁽⁸⁾

The treatment option for impacted supernumerary teeth varies from no treatment with regular monitoring to disimpaction or surgical removal. If the tooth remains asymptomatic and not associated with any complications regular monitoring is sufficient. If its associated with clinical complications surgical removal is mandatory.⁽⁸⁻¹¹⁾

Conclusion

This paper highlights about the role of radiography in diagnosing many oral diseases. One among them is the impacted inverted supernumerary teeth. Most of the time is an incidental finding during routine dental radiography. We have herewith reported a rare incidental finding of inverted mesiodens in the anterior maxilla not associated with any clinical complications neither associated with any syndromes. Hence, no treatment was done for the same and patient was under periodic check-up.

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