

Twin Mesiodens present in maxillary arch, a rare finding: A report of two cases

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Abstract

The term mesiodens refers to a supernumerary tooth that is present in the midline of the maxilla between the two central incisors. Its occurrence as multiples is termed as 'mesiodentes'. Double mesiodentes is a rare phenomenon. The prevalence of mesiodens varies between 0.09% and 2.05% in different studies. The etiology of this dental anomaly remains unclear. There probably exists a familial disposition. This is a case report of two patients presented with two mesiodens.

Keywords: Mesiodens, Mesidentes, Supernumerary tooth

Introduction

A supernumerary tooth is a developmental anomaly of number characterized by the presence of tooth in addition to the normal series. The prevalence varies between 0.3 and 3.8% of the population¹. While supernumerary tooth may be found in any region of the dental arch, the most common site is the palatal midline between the two maxillary central incisors, where it is termed as mesiodens². Mesiodens accounts for approximately one-third of the supernumerary teeth. On the basis of its morphology, mesiodens can be classified as conical, supplemental and tuberculate type³. Asymptomatic unerupted mesiodens may be discovered during radiological examination of the premaxillary area. Mesiodens may give rise to a variety of complications, such as impaction, delayed eruption and ectopic eruption of adjacent teeth, crowding, diastema, axial rotation and displacement, radicular resorption of adjacent teeth and dentigerous cyst⁴⁻⁷. Mesiodens occur more commonly in the permanent dentition (0.1-3.6%) when compared to that of primary dentition (0.02-1.9%)⁸.

Case 1

A 14 year old boy reported to Department of Dentistry, Institute of Medicine, with the chief complaint of extra teeth in the upper front teeth region causing difficulty in speech, as well as concern about the unaesthetic appearance. He wanted to get his extra teeth removed. Clinical examination revealed that the patient had all the permanent teeth erupted.

Additionally, there were two mesiodens (mesidentes) present palatal to 11 and 21 resulting in protrusion and spacing of the permanent maxillary central incisors (Fig. 1). One of the mesiodens was conical, while other one was tuberculate in shape. Intraoral Periapical (IOPA) radiograph revealed the presence of two supernumerary teeth, located between the roots of the permanent central incisors. General examination was carried out in order to rule out any syndromes associated with supernumerary teeth. The mesiodentes were extracted and the patient was advised for orthodontic treatment for the alignment of the teeth.

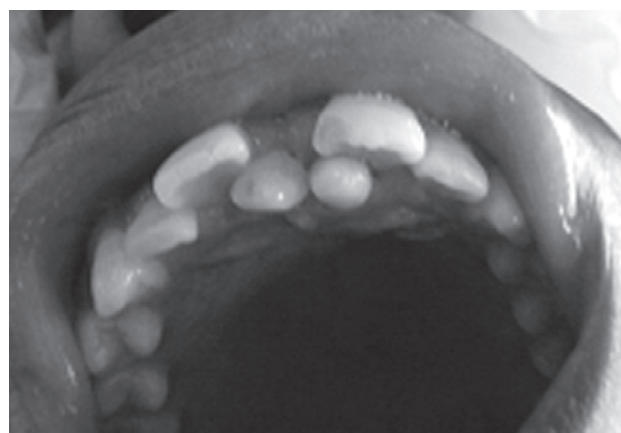


Figure 1: Intraoral view showing palatally erupted two mesiodens causing midline diastema irt 11 and 21

Case 2

A 16 year old girl reported to Department of Dentistry, Institute of Medicine, with the chief complaint of extra tooth in the upper front teeth region causing difficulty in speech and difficulty in occluding teeth. She also wanted to get her extra tooth removed. On clinical examination, it was seen that she had all the permanent teeth erupted except permanent third molars. There was midline diastema between 11 and 21. It was also observed that along with one mesiodens located between 11 and 21, there was an extra mesiodens located palatal to 11. In this case also, one of the mesiodens was conical, while other one was tuberculate in shape. 12 had erupted palatally due to lack of space (Fig. 2). General examination was carried out in order to rule out any syndromes associated with supernumerary teeth. The patient was explained about the presence of two mesiodens (mesiodentes), which required extraction to improve occlusion and speech. Both mesiodens were extracted and the patient was advised for orthodontic treatment for the alignment of the teeth.

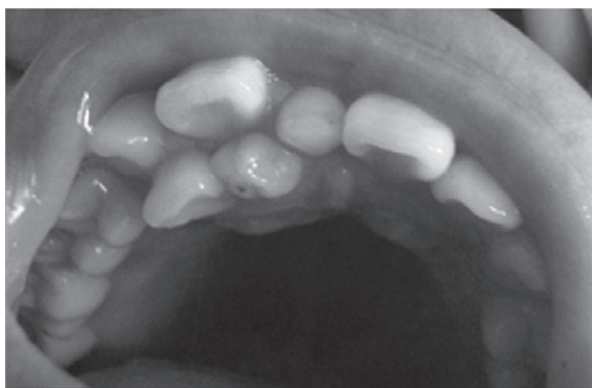


Fig. 2 Intraoral view showing palatally erupted two mesiodens causing midline diastema between 11 and 21, and palatally displaced 12

Discussion

Various theories have been suggested regarding etiology of supernumerary tooth. These include atavistic theory (phylogenetic relic of extinct ancestors who had three central incisors)⁹, dichotomy of the tooth bud¹⁰ and hyperactivity of the dental lamina¹¹. The theory, involving hyperactivity of the dental lamina, is the most widely supported. According to this theory, remnants of the dental lamina or palatal offshoots of active dental lamina are induced to develop into an extra tooth bud.

Mesiodens is present as a single supernumerary tooth. The present cases demonstrate the possibility of their occurrence as multiples, commonly referred as “mesiodentes”¹². In

these cases, extraction of the mesiodentes was judged necessary, since these teeth had caused axial protrusion and spacing of the permanent central incisors.

General examination of both the patients was carried out in order to rule out any underlying developmental disorders. Various developmental disorders like cleft lip and palate, cleidocranial dysostosis, Gardner’s syndrome, Fabry Anderson’s syndrome, Ellis Van Creveld syndrome (chondroectodermal dysplasia), Ehlers-Danlos syndrome, incontinentia pigmenti and trichorhinophalangeal syndrome are associated with supernumerary teeth¹³.

A large percentage of anterior supernumerary teeth remain unerupted. It has been stated that only 25% of maxillary anterior supernumerary teeth erupt¹¹. Proper evaluation and early extraction of the supernumerary teeth may help to reduce the duration of orthodontic treatment and if coupled with speech therapy, will improve the quality of life and self-esteem of the patient¹⁴.

Conclusion

This paper reports two rare cases of twin mesiodens in the maxillary arch which apart from causing the usual malocclusion also caused speech difficulty in the patient. Detailed examination of the patient is important to rule out any other unknown problems that may be associated with mesiodens.

Conflict of interest: None declared.

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