



CASE REPORT

FULLY ERUPTED TWIN MESIODENS: A CASE REPORT

Dr. Navin Hadadi Krishnamurthy, * Dr. Surej Unnikrishnan, Dr. Umapathy Thimmegowda and Dr. Joseph Thomas

Department of Pedodontics and Preventive Dentistry, Rajarajeswari Dental College and Hospital,
#14, Ramohalli cross, Kumbalgodu, Mysore road, Bangalore- 560074, India

ARTICLE INFO

Article History:

Received 12th March, 2017
Received in revised form
20th April, 2017
Accepted 21st May, 2017
Published online 30th June, 2017

Key words:

Mesiodentes, Supernumerary Teeth,
Developmental Anomaly.

Copyright©2017, Navin Hadadi Krishnamurthy et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Dr. Navin Hadadi Krishnamurthy, Dr. Surej Unnikrishnan, Dr. Umapathy Thimmegowda and Dr. Joseph Thomas, 2017. "Fully erupted twin mesiodens: A case report", *International Journal of Current Research*, 9, (06), 52667-52670.

ABSTRACT

Supernumerary teeth which are located between the two central incisors are termed as mesiodens. The occurrence of which in multiples are referred to as mesiodentes. We present a case report of an asymptomatic, non-syndromic fifteen year old male patient with fully erupted double mesiodens leading to unaesthetic appearance.

INTRODUCTION

Supernumerary teeth are those teeth which are in excess of the normal set of teeth. The occurrence of supernumerary teeth was first described between 23 and 79 AD (Amarlal *et al.*, 2013). Developmental disturbances occurring during odontogenesis results in formation of supernumerary teeth. Supernumerary teeth can be classified on basis of its location as mesiodens, distomolars, paramolars and para premolars (Scheiner *et al.*, 1997). Mesiodens, a term coined by Bolk (1917) refers to the supernumerary tooth present in the premaxillary region between the two central incisors (Luten, 1967; Schulze 1970). It constitutes to be the most common supernumerary teeth found in the dental arch. Seen in both the deciduous and permanent dentition, mesiodens are more common in permanent than in primary dentition. The incidence of occurrence of mesiodens is 0- 1.9% for deciduous teeth and 0.15 -3.8% for permanent teeth with a male to female prevalence ratio of 2:1(Rajab *et al.*, 2002). Mesiodens can occur either individually or as multiples known as mesiodentes. A mesiodens could be unilateral / bilateral or in an inverted position. It usually presents with a rudimentary morphology – a conical crown, which is smaller in size than

the adjacent normal teeth however at times it mimics a more natural tooth shape. The roots are totally formed, which may be curved or globular (Canoglu *et al.*, 2009). About 20% of all mesiodentes erupt spontaneously into the oral cavity. In general, they are diagnosed during routine radiographic examination as they remain impacted and asymptomatic for a prolonged duration (Hatab *et al.*, 1994). The aim of this case report is to describe a case of bilateral, fully erupted conical mesiodentes in a 15 year old non symptomatic, asyndromatic male patient.

CASE REPORT

A 15-year old Indian boy reported with his father to the Department of Pedodontics and Preventive Dentistry, Rajarajeswari Dental College and Hospital, with the chief complaint of 'extra teeth' in his upper front jaw region. The boy desired removal of these extra teeth as it led to an un-aesthetic look. Born to non-consanguineous marriage, he is the only son to his parents. His medical history was non-contributory and detailed family history revealed no member with such condition. Intra oral examination of the boy revealed complete set of teeth from the permanent central incisors to the permanent second molar in each quadrant with two conical, fully erupted mesiodentes one placed palatal compared to the other between the right and left maxillary central incisors. The left central incisor was labially placed compared to its counterpart of the first quadrant. Both the maxillary central

*Corresponding author: Dr. Surej Unnikrishnan,

Department of Pedodontics and Preventive Dentistry, Rajarajeswari Dental College and Hospital, #14, Ramohalli cross, Kumbalgodu, Mysore road, Bangalore- 560074, India

incisors showed Ellis Class I fracture at the mesial incisal edge. History of trauma leading to the Ellis fracture could not be elicited from the patient or his guardian. The mandibular arch showed anterior teeth crowding with Class I molar relation on left side and end-on molar relation on the right side. The over jet and overbite was slightly more than the normal. Soft tissue examination showed no abnormalities. Patient was advised for an intraoral periapical radiograph (IOPA) and an orthopantomograph (OPG), radiographs confirmed the presence of mesiodentes with conical crown and fully formed roots in relation to the maxillary permanent incisors. Absence of any impacted supernumerary teeth was ruled out by the OPG.



Figure 1. Pre-treatment intraoral photograph in occlusion showing fully erupted mesiodentes in the maxillary arch



Figure 2. Pre-treatment intraoral photograph of the maxillary arch with mesiodentes



Figure 3. Pre-treatment intraoral photograph of the mandibular arch



Figure 4. End On molar relationship on the right side



Figure 5. Angles Class I molar relation on the left side



Figure 6. Orthopantomograph confirming twin mesiodentes on the maxillary arch



Figure 7. Extracted Mesiodentes

The treatment plan consisted of extraction of the mesiodentes with subsequent closure of midline diastema an management

of malocclusion. Prior to the extraction, informed consent was obtained from the patient's guardian and the extraction of the mesiodentes was done under local anaesthesia. The extraction was uneventful and analgesics were prescribed for post-operative pain relief. On recall after 10 days the extraction socket showed satisfactory wound healing.



Figure 8. Post-op photograph immediately after extraction of mesiodentes



Figure 9. Review after 10 days



Figure 10. Photograph of the maxillary arch at the tenth day recall visit, showing satisfactory extraction site healing

Thereafter the patient was referred to the department of Orthodontics for management of malocclusion and closure of midline diastema of about 9 mm which required fixed orthodontic therapy.

DISCUSSION

Mesiodens can be seen as an isolated finding in an asymptomatic patient or as one of the features of syndromes such as Cleidocranial dysplasia, Ehlers-Danlos syndrome Type III, Ellis- Van Creveld syndrome, Gardner's syndrome, Goldenhar syndrome, Hallermann-Streiff syndrome, Orofaciodigital syndrome type I, Incontinentia pigmenti, Marfan syndrome, Nance Horan syndrome, and Trichorhinophalangeal syndrome 1 and also have been reported in conditions like cleft lip and/or palate (Mallineni SK, 2014). In literature, various authors have described the incidence of multiple supernumerary teeth – impacted or fully erupted.

According to Asaumi JI (Asaumi *et al.* 2004) the number of supernumerary teeth was one in 146 cases (73%), two in 52 cases (26%) and three in 2 cases (1%). Gunduz K (Gunduz *et al.*, 2008) reported 76.8% of the children had one mesiodens & 23.1% had two mesiodens bilaterally to the midline. Of the 85 mesiodens reported by Gunduz K *et al.*, 67 (78.8%) were fully impacted, 6 (7.05%) were partially erupted & 12 (14.11%) were fully erupted. Several complications have been associated with the presence of mesiodens or supernumerary teeth in general including crowding, delayed eruption, spacing, impaction of permanent incisors, abnormal root formation, alteration in the path of eruption of permanent incisors, median diastema, cystic lesions, rotation, root resorption of the adjacent teeth, or even eruption of incisors in the nasal cavity and retained deciduous teeth (Mallineni SK., 2014). They can also compromise the esthetics, complicate procedures like alveolar bone grafting, compromise the sighting of implants, and impinge on nerves causing paresthesia and/or pain (Garvey *et al.*, 1999). Opinion regarding the management of mesiodens is highly controversial with no proper consensus over the timing of surgical removal of the supernumerary teeth. For impacted mesiodentes extraction is not the only treatment choice. If the mesiodens remains asymptomatic and does not show any complications, it may be left in place and observed periodically (Rajab *et al.*, 2002).

In an earlier literature Koch (Koch *et al.*, 1986) also suggested that supernumerary teeth, if left untreated have a tendency to resorb and disappear by itself. Regarding the surgical removal of teeth, Hogstrum and Andersson (Hogstrum *et al.*, 1987) suggested two options. The first being removal of the supernumerary as soon as it has been diagnosed whereas the second option allows the supernumerary to be left behind until root development of the adjacent teeth is complete. Scanlan and Hodges (Scanlan *et al.*, 1997) suggested early removal of supernumeraries in case of complications if not maintenance of the supernumerary *in situ*, with appropriate follow up. According to Shah (Shah *et al.*, 2008) if the supernumerary teeth cause no complications and are not likely to interfere with orthodontic tooth treatment, they can be monitored with yearly radiographic review. Omer (Omer *et al.*, 2010) is of the opinion surgical removal of the supernumerary teeth at Demirjian stage C (4-5 years old) exhibited minimal complications. In the present case, surgical removal of the mesiodentes was judged necessary, since these teeth had caused displacement of central incisors and contributed to unaesthetic appearance.

Conclusion

The mesiodens is a common, interesting dental anomaly that a dental practitioner usually comes across. Awareness of its incidence, features and complications is of utmost significance. Management of a case of mesiodens is important because the earlier the detection, the minimal are the future complications and the better is the prognosis.

REFERENCES

- Amarlal, D. Muthu, MS. 2013. Supernumerary teeth: Review of literature and decision support system, *Indian J Dent Res.*, 24:117-22.
- Asaumi, JI. Shibita, Y. Yangi, Y. Hisatomi, M. Matsuzaki, H. Konouchi, H. Kishi, K. 2004. Radiographic examination of mesiodens and their associated complications. *Dentomaxillofac Radiol.*, 33: 125 -127.
- Canoglu, E. Er, N. Cehreli, ZC. 2009. Double inverted mesiodentes: Report of an unusual case. *Eur J Dent.*, 3:219-23.
- Garvey, MT. Barry, HJ. Blake, M. 1999. Supernumerary teeth – an overview of classification, diagnosis, and management. *J Can Dent Assoc.*, 65:612-6.
- Gunduz, K. Celenk, P. Zengin, Z. Sumar, P. 2008. Mesiodens: a radiographic study in children. *Journal of oral sciences*, 50: 287-291
- Hattab, FN. Yassin, OM. Rawashdeh, MA. 1994. Supernumerary teeth: report of three cases and review of the literature. *ASDC J Dent Child.*, 61:382-393.
- Hogstrum, A. Andersson, L. 1987. Complications related to surgical removal of anterior supernumerary teeth in children. *ASDC J Dent Child.*, 54:341-3.
- Koch, H. Schwartz, O. Klausen, B. 1986. Indications for surgical removal of supernumerary teeth in the premaxilla. *Int J Oral Maxillofac Surg.*, 15:273-81.
- Luten, JR Jr. 1967. The prevalence of supernumerary teeth in primary & mixed dentition. *J Dent Child.*, 34: 346-53
- Mallineni, SK. 2014. Supernumerary Teeth: Review of the Literature with Recent Updates. Conference Papers in Science. <http://dx.doi.org/10.1155/2014/764050>
- Omer, RS. Anthonappa, RP. King, NM. 2010. Determination of the optimum time for surgical removal of anterior supernumerary teeth. *Pediatr Dent.*, 32:14-20.
- Rajab, LD. Hamdan, MA. 2002. Supernumerary teeth: Review of the literature and a survey of 152 cases. *Int J Paediatr Dent.*, 12:244-54.
- Scanlan, PJ. Hodges, SJ. 1997. Supernumerary premolar teeth in siblings. *Br J Orthod.*, 24:297-300.
- Scheiner, MA. Sampson, WJ. 1997. Supernumerary teeth: A review of the literature and four case reports. *Aust Dent J.* 42:160-5.
- Schulze, C. 1970. Developmental abnormalities of the teeth and jaws. In: Gorlin RJ, Goldman HM, eds. Thoma's oral pathology. StLouis: CV Mosby, p112-22.
- Shah, A. Gill, DS. Tredwin, C. Naini, FB. 2008. Diagnosis and management of supernumerary teeth. *Dent Update* 35:510-520, 514-6, 519-20.
