

Floral double mesiodentes: A rare case report

Gowri Sankar Singaraju,
B. Rama Mohan Reddy,
G. Supraja,
K. Narayana Reddy

Department of Orthodontics, Government Dental College, Kadapa, Andhra Pradesh, India

Address for correspondence:

Dr. Gowri Sankar Singaraju, Department of Orthodontics, Government Dental College, Putlampalli, Kadapa - 516 001, Andhra Pradesh India. E-mail: drgowrisankar@gmail.com

Abstract

Mesiodens is the most commonly erupting supernumerary in the midline between two maxillary central incisors. Mesiodentes is a rare condition when mesiodens erupt in multiples, which may present as either labial or palatal to permanent central incisors. We report a rare case of double mesiodentes (non-syndromic mesiodentes) with floret like appearance. The presence of mesiodens has functional and esthetic implications. Careful radiographic evaluation should be done to prevent complications during their extraction.

Key words: Central incisors, floral, mesiodens, mesiodentes

INTRODUCTION

The deviation in number from normal complement set of teeth is called as “hyperdontia.” The extra tooth or teeth is/are described as supernumerary tooth or teeth, which may occur in different forms (conical, tuberculate, supplemental and odontomas),^[1] locations (mesiodens, paramolar and distomolar)^[2] and shapes, (supplemental/eumorphic and rudimentary/dysmorphic).^[2] Mesiodens is the most common form of supernumerary teeth and accounts for 30% incidence.^[3-5] They are usually miniature in form with a conical shaped crown and blunt root. Thus, they represent a deviation both in number and shape of the teeth. The prevalence of supernumerary teeth is reported to be 0.1-3.6%, with higher incidence rate in males than females (incidence ratio of 2:1) and commonly observed with permanent dentition when compared with deciduous dentition.^[4,5] Mesiodens usually occur in singlet's and their occurrence in multiples is referred to as mesiodentes.^[6-15]

CASE REPORT

This was case report of a 23-year-old male patient who reported to the Department of Orthodontics with the chief complaint of flower like upper front teeth causing difficulty in speech. Clinical examination revealed a normal patient without any signs of syndromic features. The patient had full complement set of teeth, which had yellowish fluorosis stains [Figure 1]. Two mesiodens were present, one palatal and the other labial to 11 and 21 resulting in proclination and rotation of the maxillary central incisors [Figures 1 and 2]. The occlusion and arrangement of anterior teeth was disturbed both in

maxillary and mandibular arch due to the presence of mesiodentes [Figures 3 and 4]. Patient also complained of difficulty in pronunciation of certain words due to proclination of his front teeth. Patient's self-esteem was low, which was affecting his social life. Soft-tissue profile was normal. Radiographic diagnosis included orthopantomograph (OPG), lateral cephalogram and intraoral periapical (IOPA) radiograph. No other supernumerary teeth or abnormalities were observed in the OPG examination [Figure 3]. The lateral cephalogram examination was explored to rule out the possibility of crossover of mesiodens from labial to palatal side and also the direction of eruption of mesiodens [Figure 3]. The IOPA radiographs revealed two separate twin mesiodens which are conical in shape. The root formation was complete in both teeth. The periodontal ligament shadow



Figure 1: Intraoral photograph-frontal and lateral view — proclination and rotation of central incisors due to double mesiodentes (column width)

was clear around both teeth ruling out ankylosis [Figure 4]. Cephalometric findings indicate that it is a class I skeletal case with overjet of 6-7 mm, bimaxillary dentoalveolar protrusion with crowding of upper and lower teeth.

After a detailed examination and case discussion it was decided to extract the two mesiodens as an initial step and align the maxillary permanent central incisors. Mesiodens were extracted under local anesthesia and uneventful. It was decided to evaluate the case after alignment to make a choice between first and second premolars for extraction to improve the esthetics as well as function [Figure 5].

DISCUSSION

The presence of mesiodens in the midline poses an esthetic as well as functional problem. There are three controversial

theories put forward regarding the occurrence of mesiodens in normal dentition. The first theory is atavistic theory^[4] which proposes that the mesiodens is a phylogenetic recapitulation of our ancestors who had three central incisors. The Dichotomy theory proposes that the mesiodens is the result of unequal splitting of tooth bud to create two teeth.^[8,9] The third theory and most accepted theory suggests hyperactivity of the dental lamina wherein remnants of dental lamina are induced to develop into an extra tooth bud.^[8]

The mesiodens occurs as autosomal dominant pattern with incomplete penetration. Although mesiodens may be familial in nature it does not follow a simple mendelian pattern.^[15] They may also occur in association with other developmental abnormalities or syndromic conditions such as cleft lip and palate, Down's syndrome, cleidocranial dysostosis and Gardner's syndrome.^[16] Majority of mesiodens erupt palatally^[14] and in some cases spontaneously erupt into



Figure 2: Intraoral photograph of the maxilla and mandible-occlusal view. Relative position of the two mesiodens with floret like appearance. Deranged occlusion and crowding in the mandibular arch (column width)

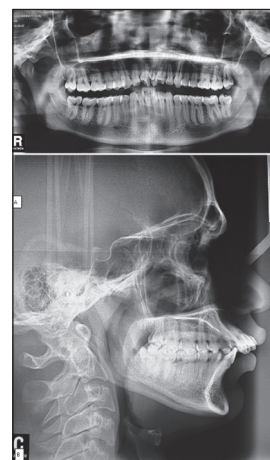


Figure 3: Orthopantomographic and lateral cephalogram view of the patient with double mesiodens and no signs of cystic formation or any other supernumerary teeth (column width)

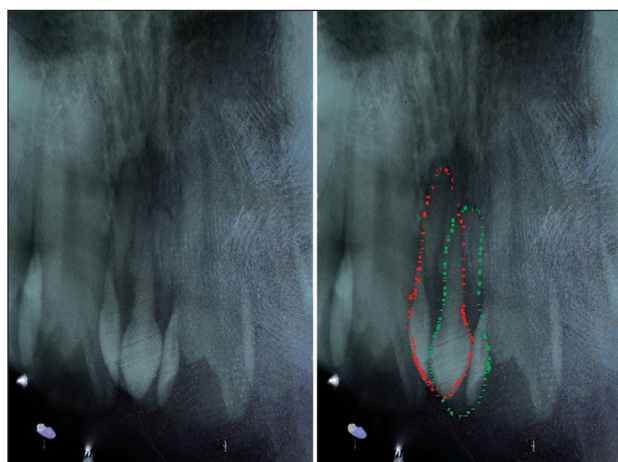


Figure 4: Intraoral periapical radiography with two separate clear images of the periodontal ligament with mesiodens represented by dotted lines green and red separately (column width)



Figure 5: Extracted specimen of the two conical shaped mesiodens and post extraction occlusal view of the maxilla with two separate sockets (column width)

the oral cavity. Mesiodentes interfere with the eruption of permanent central incisors and may result in their impaction.^[7] Mesiodentes may erupt normally^[10,11] but may be unerupted (unilateral or bilateral)^[9,12] and inverted.^[10] Mesiodentes usual present as double mesiodens in most of the cases but a rare case of triple mesiodentes was also reported.^[7] The case presented here is unique where as one of the mesiodens is palatal and the other are labial, present in the midline giving a floret like appearance to the premaxillary region. All most all the cases of mesiodentes reported are conical in shape^[7-12] and this case followed the same pattern. However, in our case the mesiodentes erupted normally but resulted in the proclination of upper and lower central incisors and rotation of the maxillary central incisors. In the case presented here the mesiodentes have erupted in normal vertical position. In case of horizontal eruption, care has to be taken to evaluate whether the mesiodentes have crossed the dental arch from labial to palatal side. In such cases the injudicious extraction of mesiodentes may result in unwarranted luxation avulsion of the permanent central incisors. Mesiodens may cause structural disturbances, esthetic disharmony as well as functional inefficiency. They may result in delayed or deviation in eruption of succedaneous permanent teeth or cyst formation.^[12] The central incisors may be rotated resulting in midline diastema.^[15-17] In our case the maxillary central incisors were severely rotated as well as proclined resulting in unesthetic appearance. Due to his deranged occlusion the normal masticatory function is affected and speech is impaired. In this particular case, taking into consideration the age of the patient as well as the problems associated with the mesiodentes (speech difficulty, unesthetic appearance and psycho social problems), extraction of the mesiodens was performed.

CONCLUSION

We report a rare case of twin mesiodentes in the maxillary arch arranged in floral pattern causing occlusal disturbances as well speech difficulty in the patient. A new flower like pattern of double mesiodens was also observed, which we believe is a rare occurrence.

REFERENCES

1. Srivatsan P, Aravindha Babu N. Mesiodens with an unusual morphology and multiple impacted supernumerary teeth in a non-syndromic patient. *Indian J Dent Res* 2007;18:138-40.

2. Schmuckli R, Lipowsky C, Peltomäki T. Prevalence and morphology of supernumerary teeth in the population of a Swiss community. Short communication. *Schweiz Monatsschr Zahnmed* 2010;120:987-93.
3. Primosch RE. Anterior supernumerary teeth — Assessment and surgical intervention in children. *Pediatr Dent* 1981;3:204-15.
4. von Arx T. Anterior maxillary supernumerary teeth: A clinical and radiographic study. *Aust Dent J* 1992;37:189-95.
5. Sharma A, Gupta S, Madan M. Uncommon mesiodens — A report of two cases. *J Indian Soc Pedod Prev Dent* 1999;17:69-71.
6. Ferrés-Padró E, Prats-Armengol J, Ferrés-Amat E. A descriptive study of 113 unerupted supernumerary teeth in 79 pediatric patients in Barcelona. *Med Oral Patol Oral Cir Bucal* 2009;14:E146-52.
7. Laws TF. Triple mesiodentes. *J Am Dent Assoc* 1979;99:483.
8. Seddon RP, Johnstone SC, Smith PB. Mesiodentes in twins: A case report and a review of the literature. *Int J Paediatr Dent* 1997;7:177-84.
9. Choi WK, Chang RC, Chuang ST. Bilateral mesiodentes of identical twins — A case report. *Zhonghua Ya Yi Xue Hui Za Zhi* 1990;9:116-21.
10. Canoglu E, Er N, Cehreli ZC. Double inverted mesiodentes: Report of an unusual case. *Eur J Dent* 2009;3:219-23.
11. Gharote HP, Nair PP, Thomas S, Prasad GR, Singh S. Nonsyndromic double mesiodentes — Hidden lambs among normal flock! *BMJ Case Rep* 2011;2011: pii: bcr0720114420. doi: 10.1136/bcr.07.2011.4420. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3171039/>. [Last cited on 2011 Aug 22].
12. Dinkar AD, Dawasaz AA, Shenoy S. Dentigerous cyst associated with multiple mesiodens: A case report. *J Indian Soc Pedod Prev Dent* 2007;25:56-9.
13. Russell KA, Folwarczna MA. Mesiodens — Diagnosis and management of a common supernumerary tooth. *J Can Dent Assoc* 2003;69:362-6.
14. Meighani G, Pakdaman A. Diagnosis and management of supernumerary (mesiodens): A review of the literature. *J Dent (Tehran)* 2010;7:41-9.
15. Scheiner MA, Sampson WJ. Supernumerary teeth: A review of the literature and four case reports. *Aust Dent J* 1997;42:160-5.
16. Prabhu NT, Rebecca J, Munshi AK. Mesiodens in the primary dentition — A case report. *J Indian Soc Pedod Prev Dent* 1998;16:93-5.
17. Asaumi JI, Shibata Y, Yanagi Y, Hisatomi M, Matsuzaki H, Konouchi H, *et al.* Radiographic examination of mesiodens and their associated complications. *Dentomaxillofac Radiol* 2004;33:125-7.

How to cite this article: Singaraju GS, Reddy B, Supraja G, Reddy KN. Floral double mesiodentes: A rare case report. *J Nat Sc Biol Med* 2015;6:229-31.

Source of Support: Nil. **Conflict of Interest:** None declared.

Access this article online

Quick Response Code:	Website: www.jnsbm.org
	DOI: 10.4103/0976-9668.149197