



**ORIGINAL RESEARCH PAPER**

**Paediatrics**

**DOUBLE MESIODENS : A RARE CASE REPORT OF IMPACTED MOLARIFORM AND A CONICAL MESIODENTES**

**KEY WORDS:** Conical, Maxilla, Mesiodens, Mesiodentes, Molariform , Supernumerary teeth

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**ABSTRACT**

Any tooth present in the dental arch other than regular number is called as supernumerary teeth which leads to hyperdontia. Mesiodens is the commonest supernumerary teeth present in the premaxillary region. Multiple mesiodens is a rare condition often associated with impacted or erupted mesiodentes. Early diagnosis help in avoiding further complication like disturbance in chewing, swallowing and speech, impaired dentofacial aesthetics, and sometimes cyst formation. Here, we report a case of double mesiodentes in a non-syndromic patient which led to spacing and unaesthetic appearance.

**INTRODUCTION**

A supernumerary tooth can be defined as an extra tooth in comparison to the normal dentition. It was first reported between AD 23 and 79 (M L Asha et al). According to Mosby's Medical Dictionary, "Mesiodens is defined as a supernumerary erupted or an unerupted tooth that develops between two maxillary central incisors" (Mosby's). The term mesiodens was coined by Balk in 1917 to indicate supernumerary teeth present between two central incisors (M L Asha et al).

Literature quotes a higher rate of prevalence of supernumerary teeth among Asian population compared to Caucasians. Incidence of two supernumerary teeth is noted to be 12% to 13% (B W Neville, oral path textbook), with mesiodens being the most common form of supernumerary teeth accounts to 30% (Gowri S S). Although there is no significant sex distribution among primary dentition, where as 2:1 male predominance is seen in permanent dentition (Mustaq M, B W Neville, oral path textbook)

Mesiodens are of different varieties. (i) Eumorphic, which resembles a natural tooth, (ii) dysmorphic, which may be conical, (iii) tuberculate or molariform. Mesiodens usually occurs in singlets and their occurrence in multiples is referred to as mesiodentes (R D Battacharya). Mesiodens may be impacted or erupted, labially or palatally placed or in between the two maxillary central incisors (Gowri S S). It may be found as a normal variant or associated with syndromes like Apert, Clidocranial dysplasia, Crouzon, Down's, Gardner's etc., (Khatri M P, B W Neville, oral path textbook). Mesiodens have a conical crown with short roots and can either causedelayed eruption, malposition, impaction of permanent incisors, crowding, spacing, or median diastema (Lustmann J).

Various authors have tried to explain etiopathogenesis of supernumerary teeth. Smith put forth "**Phylogenetic theory**" which relates to atavism, which refers to re-appearance of ancestral condition (Mustaq, B W Neville, oral path textbook). Liu postulated "**Dicotomy theory**", which emphasizes that supernumerary teeth are created by dichotomy of permanent tooth bud (Mustaq).

Presence of impacted mesiodens is identified by routine periapical radiograph (IOPAR), occlusal radiograph or orthopantomograph (OPG). Buccolingual position of mesiodens can be traced using parallax technique (Khandelwala V). However Cone Beam Computed Tomography (CBCT) may give more accurate imaging of position and relation of impacted mesiodens with surrounding structures.

Management is generally by extraction of mesiodens followed by

space closure, however in few cases it is retained and observed over a period (Khatri MP)

Here, we report a case of double mesiodentes, one impacted conical and another partially erupted molariform in a non-syndromic patient, which are palatal to permanent maxillary central incisor causing malocclusion, and unaesthetic appearance.

**CASE REPORT**

A 12yr old boy reported to department of pedodontics, sharavathi dental college, shivamogga, Karnataka, India; with the chief complaint of spacing in upper front tooth region and irregularly placed teeth. Family and medical history was not significant and was not associated with any syndrome. On clinical examination patient was found to be in mixed dentition stage, with midline diastema (fig 1) and an increased overjet. Clinical and radiographic examination revealed presence of 2 extra teeth in the midline and was diagnosed as mesiodens (fig 2).

A comprehensive treatment plan was formulated, which included extraction of the mesiodens under local anesthesia by raising a full thickness palatal flap. One of the extracted mesiodens showed a completely formed root and presence of two cusps suggestive of a molariform mesiodens (fig 3,4). Second mesiodens was having a conical crown and had erupted into oral cavity. Post operative occlusal radiograph was taken to rule out any damage to adjacent oral structures.(fig 5).

**DISCUSSION**

Mesiodens may be single or multiple, they often remain unerupted in few cases (asha). Gundzu et al documented supernumerary tooth in 76.8% cases, around 23.1% of which had two mesiodens bilaterally placed on either side of midline (asha<sup>18</sup>). According to many author mesiodens are palatally placed and rarely present labially (asha<sup>14</sup>). The case presented here is unique where one of the mesiodens is molariform and another conical. All most all the cases of mesiodentes reported are conical in shape and molariform is a rare occurrence (kanika). In the case presented here the mesiodentes are impacted leading to spacing and malposition of maxillary teeth. Mesiodens may cause structural disturbances, esthetic disharmony as well as functional inefficiency leading to delayed eruption of succedaneous permanent teeth or cyst formation (gowri ss<sup>12</sup>dinkar).

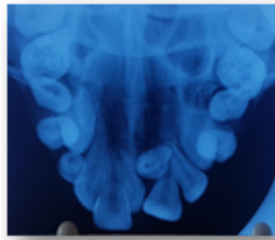
The central incisors may be rotated resulting in midline diastema. In this case the maxillary central incisors were rotated as well as proclined resulting in unaesthetic appearance. Spacing and malposition result in altered speech leading to psychological disturbance.

**CONCLUSION**

Careful clinical and radiographic examination with family and medical history should be carried out to detect the presence of supernumerary teeth. Celestial approaches to malocclusion also help in early detection of mesiodens and prevention of associated problems. A molariform mesiodens was observed here and we believe it is one of the rare occurrence.



**Fig 1**



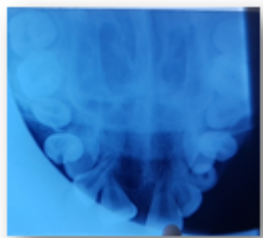
**Fig 2**



**Fig 3**



**Fig 4**



**Fig 5**

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