

## UNUSUAL INVERTED AND MOLARIFORM SUPERNUMERY TEETH – A CASE REPORT

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### Abstract

Supernumerary teeth are a relatively frequent disorder of odontogenesis, characterised by an excess number of teeth. The various forms of supernumerary teeth are, supplemental, conical, tuberculate and molariform. Molariform supernumerary teeth in the maxillary central incisor area are uncommon. This article reports an unusual presence of molariform mesiodens along with an inverted conical mesiodens in an eight year old boy.

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### Introduction

Supernumerary teeth may be defined as any teeth or tooth substance in excess of the usual configuration of twenty deciduous and thirty two permanent teeth<sup>1</sup>. Supernumerary teeth may occur singly, multiply, unilaterally or bilaterally, and in one or both jaws<sup>2</sup>. Supernumerary teeth can be classified based on the time of appearance; according to the position in arch; and according to their shape<sup>3</sup>. The various forms of supernumerary teeth are, supplemental, conical, tuberculate and molariform<sup>4</sup>. Molariform type of supernumerary teeth as reported in the present case is rare and uncommon. They either appear alone or in pairs in central incisor region

with complete root formation and may cause delayed eruption of adjacent teeth<sup>4</sup>.

The aetiology of supernumerary teeth is not well understood. Though many theories have been proposed to explain the anomaly based on developmental interference and heredity, environmental factors, phylogenetic process of atavism and syndromes may also play a part<sup>2,5</sup>.

### CASE REPORT

An eight year old boy was reported to the department of Pedodontics & Preventive Dentistry of S.P.P.G.I.D.M.S Lucknow, with the complain of a extra tooth erupting behind upper front teeth. His medical history was non-contributory. There was no history of similar anomalies (supernumerary teeth) among family members. Intra-oral examination revealed mixed dentition stage with Angle's class I molar relation. A palatally erupted abnormal shaped mesiodens was seen causing labial displacement of the upper right central incisor(Figure 1). Intra oral periapical radiograph confirmed the molariform mesiodens (Figure 2) and also revealed another well developed, conical, inverted supernumery

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tooth placed near the apex of upper left central incisor. Cone shift technique confirmed the position of supernumerary teeth.



**Figure 1.** Photograph of upper jaw, showing a palatally erupted molariform mesiodens and labially placed right central incisor.



**Figure 2.** Intra oral periapical radiograph showing a well developed conical inverted supernumerary and molariform mesiodens.

Patient was advised for routine blood investigation including, clotting time and bleeding time. Later it was decided to remove the supernumery teeth by raising palatal flap. A gingival sulcular incision, extending from the upper left deciduous canine to the upper

deciduous right canine, was performed to raise a full thickness palatal envelope flap (Figure 3). Bone overlying the upper left central incisor was removed with a round bur to facilitate it's removal and the flap sutured over the socket with four black silk sutures. Extracted mesiodens resembles molariform with complete root formation (Figure 4). Acrylic splint was fitted over the patient to prevent haematoma and to support the flap. On discharge the patient was prescribed Amoxicillin 250mg caps for five days. At one week recall for removal of sutures, healing was uneventful.



**Figure 3.** Palatally positioned supernumerary teeth seen upon rising palatal flap.



**Figure 4.** Occlusal view of Molariform supernumery tooth.

## Discussion

A supernumerary tooth is one that is additional to the normal series and can be found in almost any region of the dental arch<sup>6</sup>. The prevalence of hyperdontia in various populations is reportedly between 0.1-3.8% with male to female ratio of 2:1<sup>7</sup>. They occur less commonly in the deciduous dentition (prevalence of 0.02-1.9%) when compared to permanent dentition (prevalence 0.10-3.6%)<sup>8</sup>.

The relative frequency of occurrence of different supernumerary in decreasing frequency is, upper lateral incisors, mesiodens, upper central incisor, followed by bicuspid<sup>9</sup>. A large percentage of anterior supernumerary teeth remain unerupted<sup>7</sup>.

Classification of supernumerary teeth may be on the basis of position or form. Positional variations include mesiodens, paramolars, distomolars and parapremolars. Variations in form consist of conical type, tuberculate type, supplemental teeth and odontome<sup>2</sup>.

Multiple supernumerary teeth are more common when syndrome is involved. Common syndromes showing multiple supernumerary teeth along with other conditions include Gardiner's syndrome, cleidocranial dysostosis; and cleft lip and palate<sup>2</sup>. Supernumeraries are more common in the relatives of affected children than in the general population. However, the anomaly does not follow a simple Mendelian pattern<sup>6</sup>. A careful check for a familial history of supernumerary teeth could point to the presence of genetically determined syndrome<sup>2</sup>. However supernumerary teeth can occur without any syndrome or familial history as in present case.

Among the supernumerary teeth, mesiodens is the most common type. The term mesiodens refers to a supernumerary tooth present in the premaxilla between the two central incisors. Mesiodens are more common in the permanent than in primary dentition<sup>8</sup>. They can morphologically present as a cone shaped tooth, tuberculate or molariform. Very few cases has been reported with molariform mesiodens, there was three grooves in incisal/Occlusal aspect with three cusp like structures on labial half and a single cusp like structure on the palatal half<sup>3, 7, 8</sup>. Developmentally anterior teeth develop from four lobes, three lobes on labial and one on the lingual represented by the cingulum. Hence it has been proposed that, a lack of fusion of the lobes

during development could be a reason for unusual morphology of mesiodens<sup>8</sup>.

A radiographic examination is indicated if abnormal clinical signs are found. An anterior occlusal or periapical radiograph is useful to show the incisor region in detail. The buccolingual position of unerupted supernumeraries can be determined using the parallax radiographic principle: the horizontal tube shift method utilizes two periapical radiographs taken with different horizontal tube positions, whereas an occlusal film together with a panorex view are routinely used for vertical parallax. If the supernumerary moves in the same direction as the tube shift it lies in a palatal position, but if it moves in the opposite direction then it lies buccally. A true lateral radiograph of the incisor region assists in locating the supernumeraries that are lying deeply in the palate and enables the practitioner to decide whether a buccal rather than a palatal approach should be used to remove them<sup>6</sup>.

Supernumerary teeth can create various problems to adjacent teeth like, failure of eruption, displacement, crowding, dentigerous cyst formation or resorption of roots adjacent to supernumerary tooth<sup>6</sup>.

Management of supernumeraries depends on the type and position of the supernumerary tooth and on its effect or potential effect on adjacent teeth. Some authors believe that, supernumerary teeth have to be removed as soon as it has been diagnosed, to prevent any further problem on adjacent teeth<sup>2</sup>.

## Conclusions

Early detection and management of all supernumerary teeth is a necessary part of preventive dentistry. The importance of early radiographic investigation of suspected cases cannot be underestimated.

## Declaration of Interest

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