**Multiple Supplemental Supernumerary Teeth and Distomolars in a 13 year old: A Rare Case Report**

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**ABSTRACT**

Any teeth or tooth substance exceeding the normal dental formula is known as supernumerary teeth. The approximate incidence is seen to be 1 per 110 children. Among the supernumerary teeth premolars account for approximately 8.4%. When multiple supernumeraries occur in the absence of an associated systemic condition, it is a rare phenomenon. Here is a rare case report of a 13 year old female patient with multiple supplemental supernumerary teeth and distomolars.

**KEYWORDS:** Supernumerary, Mesiodens, Premolar, Supplemental, Distomolar

**INTRODUCTION**

Teeth or tooth substance in excess of the normal dental formula, which is 20 deciduous and 32 permanent teeth are known as supernumerary teeth and they may be seen in various regions of the dental arches.¹,²,³ The incidence of supernumerary teeth among the general population is approximately 1 in every 110 children, and the ratio of prevalence in the maxilla to mandible is 8.2 to 1.⁴,⁵,⁶,⁷,⁸ The most common supernumerary teeth, listed in order of frequency are the:

1. Maxillary midline supernumerary teeth;
2. Maxillary fourth molars;
3. Maxillary paramolars (rudimentary supernumeraries that develop buccally or lingually to the maxillary molars);
4. Mandibular premolars;
5. Maxillary lateral incisors;
6. Mandibular fourth molars;
7. Maxillary premolars.¹,⁹,⁴,⁶

Premolars account for approximately 8.4% of all supernumerary teeth while mandibular teeth constitute 6.6% of the total. This ratio differs from the maxilla to mandible ratio mentioned above.¹,¹⁰,¹¹,¹⁴,⁵,⁷ The wide variation in percentages reported can be attributed to variations in size of the study, age, range, racial composition and methods of detection.¹¹ 0.1%-3.8% is the observed prevalence rate of supernumerary teeth in the permanent dentition while it is 0.3%-0.8% in the primary dentition.¹,²,⁹,¹¹,¹² While there is no sex predilection for supernumerary teeth in the primary dentition, males are affected twice as often as females in the permanent dentition.¹³,²,¹¹,¹²

The supernumerary teeth that occur between or posterior to the central incisors are referred to as "mesiodens"¹⁴,¹⁵. Those in the molar area are called "paramolar" teeth¹⁵,¹⁶, and, more specifically, those that erupt distally to the third molar are "distomolar" teeth.¹⁵

**CASE REPORT**

In November 2017, a 13 year old girl was referred to the Department of Pediatrics & Preventive Dentistry. She presented with a chief complaint of pain in her left upper back tooth region for many days. Her medical history appeared noncontributory.

**Clinical evaluation:** Intraoral examination revealed all erupted permanent teeth. One mesiodens was seen palatal to the right maxillary central incisor, and two supernumerary premolars were seen on the maxillary right and left side, next to the second premolars (Fig 1).

Figure 1: Mesiodens present palatally to maxillary right central incisor. Also shows supplemental supernumerary premolars on both right and left side of maxillary second premolars.

The upper right central incisor was displaced to the side due to the presence of the mesiodens palatally (Fig 2). Deep dentinal caries involving pulp was seen in the left permanent maxillary first molar.

**Radiographic evaluation:** An Orthopantomogram was advised (Fig 3). OPG revealed mesiodens and two supernumerary premolars present each on the maxillary right and left side adjacent to the second premolars. The radiograph also revealed the presence of impacted fourth molar both on the right and left maxillary arch adjacent to the third molar still surrounded by the follicle.

**Treatment plan:** Extraction of the mesiodens and supernumerary premolars followed by orthodontic intervention was planned after the root canal treatment of the permanent left maxillary first molar. At the moment surgical extraction was planned after the root canal treatment of the permanent left maxillary first molar. Follow-up appointments were advised (Fig 3).

**DISCUSSION**

Reactivation of the incompletely resorbed dental lamina takes place at around the time of crown completion of normal teeth. This explains why supernumeraries tend to begin their development later than the corresponding teeth of the normal series. Concerning supernumerary premolars, several authors support that these develop approximately 7-11 years after the development of the normal teeth.

However, it is difficult to determine when exactly a supernumerary tooth starts to form due to their lingual position (usually), making detection on routine radiographs difficult. Careful radiographic follow up should be conducted in case any unusual radiolucencies are detected during routine radiographic screening.

The interval between progress x-rays could be 1, 2 or 5 years, as suggested by various authors. It should be noted that since supernumerary premolars commonly occur in several regions of the same mouth, this finding indicates radiographic examination of the remaining premolar regions.

Recurrence of supernumerary teeth after surgical extraction has also been reported. It is possible that the crypts of supernumerary premolars could have been present earlier, but were not detected in the previous radiographs. Periapical radiographs may also miss some of the more apically developing supernumerary premolars. Recurrence of supernumerary premolars after surgical removal was reported in 8% of the total sample. Therefore, even after supernumerary premolars are extracted, a long-term observation is advised as these may redevelop up to 5 years after initial extraction.

Patients with a previous history of supernumerary teeth in the anterior region have a 24% possibility of developing supernumerary premolars at a later age, and should therefore be closely monitored. A good group for early diagnosis of supernumerary premolars is from 12 to 24 years of age.

The prevalence of supernumerary molars is reported as 1% by Stafne, as 2% by Luten, and as 1.9% by Backmann. It is reported in the literature that fourth, fifth, sixth, and seventh molars were seen, however, fourth molars are seen much more frequently. Stafne reports most of the upper fourth molars are blunt, multicusp, and much smaller than the third molars. They may be conical or equal as large as the normal molars. Dubuk has reported a paramolar case of 4 mm in length. It had a ball-shaped crown and a relatively normal crown/root length ratio. Cassetta reported 8 of the 13 supernumerary molars were tuberculated and 5 of them were conical in shape. In Sugimara’s series of 20 distomolars cases, the distomolars resembled a molar or premolar; in his series of 13 paramolars: 8 resembled a premolar, 3 were conical, and 2 were bizarre in shape. Supernumerary molars are found more frequently in the maxilla than in the mandible. Grimani’s reported supernumerary molars are found with a percentage of 79% in the maxilla. Menardia et al. stated this percentage is 86.8%. Spauge, 91%, while Stafne reported it as 88.9%. Cassetta claims the incidence of supernumerary molars among all supernumerary teeth found in the maxilla is 75%. In our cases all distomolars were in the maxilla.

**CONCLUSION**

Usually supernumerary teeth are removed surgically, often due to the retention of the permanent teeth in the region. In the cases where the supernumerary teeth do not cause alterations in the eruption, position or integrity of
the permanent dentition, a conservative approach is preferred. Each case must be therefore considered individually concerning its treatment taken into account untoward developments like malocclusion, retention of permanent teeth or tendency of cyst formation etc. Close observation with regular radiographic controls is recommended.

REFERENCES


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