

MANAGEMENT OF SUPERNUMERARY TOOTH – A CASE REPORT**Dr. A. Vasanthakumari*¹, Dr. D. Bhavani Pratima², Dr. Vivek Krishnamoorthy³ and Dr. S. Anitha⁴**Professor and Head¹, Lecturer², Senior Lecturer³, Lecturer⁴
Adhiparasakthi Dental College and Hospital, Melmaruvathur, Tamilnadu India- 603 319.***Corresponding Author: Dr. A. Vasanthakumari**

Prof & Head, Department of Pedodontics, Adhiparasakthi Dental College & Hospital, Melmaruvathur, Tamilnadu, India.

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ABSTRACT

Supernumerary teeth are teeth in excess of the normal number. The prevalence of hyperdontia is reportedly between 0.15% and 3.9 %. Extra teeth may present in both the permanent and the primary dentition but are 5 times less frequent in the primary dentition. The present study describes the management of palatally placed supernumerary tooth in an eight year old male patient.

KEYWORDS: Supernumerary tooth, Maxilla, Dental anomaly.**INTRODUCTION**

Supernumerary teeth are defined as those in addition to the normal series of deciduous and permanent dentition. Mesiodens are unerupted supernumerary teeth in the central region of the premaxilla, between the central incisors. The most common type of supernumerary tooth as indicated by Albert is mesiodens. The occurrence of supernumerary teeth in primary dentition is quite rare despite the fact that in permanent dentition it has even been considered as the most common dental abnormality. The prevalence of this defect has increased from 0.64 to 1.06 in recent years. It has been reported that 82% of the cases it occurs in the maxilla specifically in the premaxillary region.^[1] Only a few studies have reported the occurrence of the mesiodens in the anterior region of the mandible. In permanent dentition, 0.15 to 3.8 % incidence of mesiodens has been reported with a twofold risk of occurrence in the male population compared to the female population.^[2]

Supernumerary tooth can significantly alter both occlusion and appearance by altering the eruption path and the position of the permanent incisors. This paper outlines the management of palatally placed supernumerary tooth in an eight old male patient.^[3]

CASE REPORT

An eight year old male patient was represented with a complaint of presence of extra tooth in the palatal region. The patient had no significant medical history. The familial and dental histories were non-contributory. Extra-oral examination did not reveal any abnormalities. Intra-oral examination, mixed dentition showed a conical shaped supernumerary tooth present palatal to 11. OPG and occlusal radiograph were taken to rule out the presence of supernumerary tooth elsewhere in the arch.

Taking into consideration of the age of the patient and the radiographic findings, extraction of supernumerary tooth was planned. The tooth was extracted under LA (2% Lignocaine hydrochloride) without any complications. Patient was kept under antibiotic and anti-inflammatory drugs for three weeks. After 7 days of the review, wound healing was satisfactory. Patient was called for regular follow-up to monitor the wound healing.

**Fig 1: Presence of supernumerary tooth palatal to 21.****Fig 2: Extracted site of the supernumerary tooth.**



Fig 3: Extracted supernumerary tooth.

DISCUSSION

Supernumerary tooth develops from a third tooth bud arising from the dental lamina near the permanent tooth bud or possibly from the splitting of the permanent bud itself. In some cases, a hereditary tendency has been noted. The overall prevalence of supernumerary tooth is between 0.15% to 1.9% and can occur individually or as multiples. It may appear unilaterally or bilaterally and often do not erupt. Supernumerary tooth can significantly alter both occlusion and appearance by altering the eruption path and the position of the permanent incisors.^[4]

Genetics are also thought to contribute to the development of supernumerary tooth, as such teeth has been diagnosed in twins, siblings and sequential generations of a single family. Autosomal dominant inheritance with incomplete penetration has been the proposed genetic theory. Sex linked pattern has also been proposed as males are affected twice as frequently as females. In twins, unilateral mesiodens may present as mirror images and the same number of supernumerary tooth are located in the similar regions of the mouth.^[5]

According to the literature, the shown case reports the presence of tooth among the upper incisors to the statistics that 80% upto 90% of the supernumerary occur in the maxilla. Among the possible causes for this positioning are the cleft palates, tumours, trauma, cleft lip, malformations and genetic factors. Some studies associate the alterations in the regular number of teeth to the phylogenetic reversion and hyperactivity of the dental lamina and also with dichotomy of a tooth germ.^[6]

Supernumerary tooth may be present impacted or erupted. It may remain in position for many years without any clinical manifestations. Sometimes because of the presence of mesiodens, complications like retention of primary teeth, closure of eruption path, rotation and retention, delayed eruption of permanent teeth, crowding, root resorption, pulp necrosis, diastema as well as nasal eruption and formation of dentigerous and primordial cyst. Less common complications include dilacerations of developing tooth and loss of tooth vitality. Thus early detection and removal of mesiodens

is very important to prevent these type of complications.^[7] Mesiodens are frequently associated with various cranio-facial anomalies including cleft lip and palate, Gardeners syndrome and Cleido-cranial dysostosis.^[8]

Extraction of supernumerary tooth during the early mixed dentition stage allows normal eruptive forces to promote spontaneous eruption of the Permanent central incisors after the extraction. Extraction of a supernumerary tooth at a time appropriate for promoting self-eruption in the early mixed dentition may result in better alignment of the teeth and may result the need for orthodontic treatment. Delayed treatment involves extraction of the supernumerary tooth when the unerupted central incisor's apex is almost mature, usually around 10 years of age.^[9]

The later the extraction of the supernumerary tooth, the greater the chance that the permanent tooth either will not spontaneously erupt or will be malaligned when it does erupt. Unfortunately by this time the forces that cause normal eruption of the incisors are diminished, and surgical exposure and subsequent orthodontic treatment are more frequently required. Also space loss and a midline shift of the central incisors may have already occurred by this age. Thus a significant delay in treatment can create the need for more complex surgical and orthodontic management.^[10]

CONCLUSION

Supernumerary tooth are relatively common and can cause a variety of complications. Early diagnosis of a supernumerary minimizes the treatment required and prevents development of associated problems. Extraction of the supernumerary in the early mixed dentition stage may facilitate spontaneous eruption and alignment of incisors, while minimizing intervention, space loss and midline shift.

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