ISSN: 2581 – 3633
PubMed - National Library of Medicine - ID: 101745081

International Journal of Medical Science and Advanced Clinical Research (IJMACR)

Available Online at:www.ijmacr.com

Volume – 8, Issue – 3, May - 2025, Page No.: 51 – 56

Supernumerary Teeth-A Case Series

[1]Dr. Meera Fathima, Post Graduate Student, Department of Pediatric and Preventive Dentistry, Ragas Dental College and Hospital, Uthandi, Chennai-600119

[2]Jayanthi Mungara, HOD, Department of Pediatric and Preventive Dentistry, Ragas Dental College and Hospital, Uthandi, Chennai-600119

[3]Poornima Vijayakumar, Professor, Department of Pediatric and Preventive Dentistry, Ragas Dental College and Hospital, Uthandi, Chennai-600119

[4]Deebiga Karunakaran, Reader, Department of Pediatric and Preventive Dentistry, Ragas Dental College and Hospital, Uthandi, Chennai-600119

Corresponding Author: Dr. Meera Fathima, Post Graduate Student, Department of Pediatric and Preventive Dentistry, Ragas Dental College and Hospital, Uthandi, Chennai-600119

How to citation this article: Dr. Meera Fathima, Jayanthi Mungara, Poornima Vijayakumar, Deebiga Karunakaran, "Supernumerary Teeth-A Case Series", IJMACR- May - 2025, Volume – 8, Issue - 3, P. No. 51 – 56.

Type of Publication: Case Series

Conflicts of Interest: Nil

Abstract

A supernumerary tooth is defined as a duplication of the tooth in the normal dental arch. It is a developmental anomaly and arises from multiple etiological factors. These teeth may remain embedded in the alveolar bone or erupt into the oral cavity. The supernumerary tooth might cause functional or aesthetic problems, especially if it is situated in the maxillary anterior region. Complications reported were delayed or prevented eruption of succedaneous teeth, displacement or rotation, crowding of the affected area, abnormal diastema, dilacerations, cystic formation, and sometimes eruption into the nasal cavity. This case report presents three cases of supernumerary teeth that resulted in varying degrees of disturbances in permanent dentition and one case primary dentition. Light orthodontic forces and Conservative surgical intervention were used to bring the teeth into normal position with minimal disturbance to the surrounding oral structures. The case report documented a series of supernumerary teeth of both primary and permanent dentitions.

Keywords: Abnormal Diastema, Dentition, Mesiodens Supernumerary Tooth

Introduction

Hyperdontia is the condition that denotes a supernumerary teeth or a extra teeth as a developmental anomaly with multiple etiological factors.[1] It may be multiple or single, bilateral or unilateral,

morphologically malformed or normal in size and shape, and impacted or erupted.[2-4] most commonly occurs in the maxilla but rarely in the mandible.[5]

The prevalence rate in the general population ranges between 0.15% and 1.9% and is seen as more common in males than females

The topographical classification of a supernumerary tooth is mesiodens, para lateral, paramour, dissimilar, and para premolar and according to orientation as vertical, inverted, and transverse[7]

According to Alberti et al., mesiodens is the most common type of supernumerary tooth.[5]

The 'dichotomies of the tooth bud,' [9]hereditary, and a combination of genetic and environmental factors, "Phylogenetic process of atavism,[8,] have been suggested as etiological factors of supernumerary teeth.

Hyperactivity of the dental lamina is the most accepted cause for the development of supernumerary teeth. [9 A] genetic basis for supernumerary teeth was suggested, considering the observation that a higher rate of occurrence of hypodontia is among related families.[11] Presence of supernumerary teeth in syndromes such as Gardner's syndrome and cleidocranial dysostosis strengthens the genetic basis of the disease.[12]

The complications like delayed eruption, spacing, crowding, impaction, root resorption of the adjacent tooth, a midline diastema, cystic lesion, rotation, and abnormal root formation might occur due to the presence of the supernumerary tooth.[13]

Considering the multiple complications of the presence of supernumerary the management will usually remain immediate removal of the teeth.

This article we includes a case of two supernumerary teeth with surgical management of impacted supernumerary teeth.

Case report

Case 1

An 11-year-old boy reported to the Department of Pedodontics, Ragas Dental College and Hospital, Chennai, Tamilnadu presented with a chief complaint relating to the unesthetic appearance of upper front teeth. Medical and family histories were unremarkable. The parent of the patient noticed this irregularity for the past 2 years. Clinical examination revealed that an extra tooth was present between 11 and 21, suggestive of a mesiodens. A supernumerary tooth (conical in shape) was located between two central incisors, displacing 21 labially. IOPA radiograph showed a tooth-like structure was found impacted about the apical third of 11 which is in an inverted direction (crown toward the apex), suggestive of mesiodens. To determine the position of mesiodens, a CBCT radiograph was used and locate the position of the impacted mesiodens. Under local anesthesia, Surgical extraction of the mesiodens was planned. The mesiodens, which was visible in the oral cavity, was extracted first. The palatal flap was elevated, and selective removal of the palatal bone by using a bur, the supernumerary tooth was exposed and extracted. The flaps were sutured. The patient was recalled for follow-up.

Figure 1.1: Preoperative Images

Palatally Placed Supernumerary Teeth

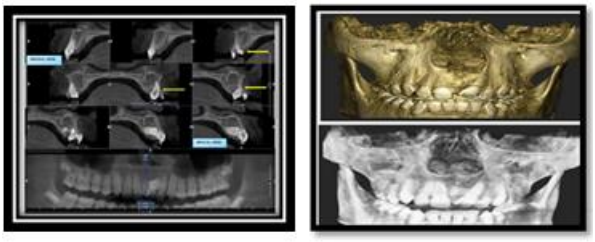

Figure 1.2: Cbct-Position of supernumerary Teeth

Figure 1.3: After Removal of Palatally Placed Exposed Teeth

Figure 1.4: Surgical Exposure and Removal of Impacted Teeth

Figure 1.5: Removed 2 Supernumerary Teeth

Figure 1.6: Sutures Placed

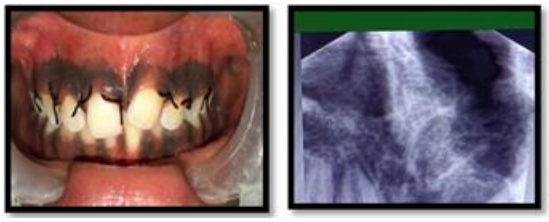

Figure 1.7: After 1 Week

Figure 1.8: After 2 Months, Bone Healing Satisfactory

Case 2

A 8-year-old boy reported to the Department of Pedodontics, Ragas Dental College and Hospital Chennai, Tamilnadu presented with a chief complaint relating to unesthetic appearance of upper front teeth. Medical and family histories were unremarkable. The parent of the patient noticed this irregularity from the eruption of permanent teeth. Clinical examination revealed that an extra tooth was present in between 11 and 21 suggestive of a mesiodens. Supernumerary tooth (conical in shape) was located in between two central incisors displacing 11 rotated. IOPA radiograph showed a tooth-like structure was found between 11 and 21.extraction of mesiodens done under LA. After extraction patient under followup and asked her to recall after 6 months for orthodontic treatment plan.

Figure 2.1: Preoperative Image Showing Mesiodens Present Between 11 And 21

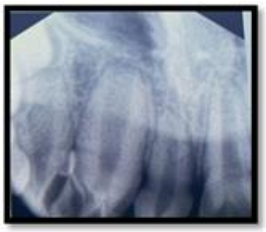

Figure 2.2: IOPA Shows Presence of Mesiodens

Figure 2.3: After Extraction of Mesiodens

Figure 2.3: Extracted Mesiodens

Case 3

A 7-year-old girl was presented to the dental clinic for a missing upper anterior teeth accompanied by her father. Clinical examination revealed multiple carious lesions on the posterior teeth with normal soft tissues. Some permanent teeth were unerupted. Notably, a supernumerary tooth (mesiodens) was observed fully erupted near to erupting 11.Radiographic imaging confirmed the presence of the fully erupted mesiodens positioned near to 11 and some interference in the pathway of erupting 21.

Treatment options were discussed with the patient's father. The proposed treatment plan consisted of extraction of the erupted mesiodens to prevent further crowding and unerupting of the left central permanent incisor. The patient was scheduled for extraction of the mesiodens under local anesthesia Following extraction, regular monitoring will be necessary to ensure proper alignment of the permanent incisors as they continue to erupt.

Figure 3.1: Preoperative Image Showing Mesiodens Present palatally to 11

Figure 3.2: IOPA Shows Mesiodens

Figure 3.3: Extracted Mesiodens

Case 4

A 4 year old boy came to the department of pediatric and preventive dentistry in Ragas dental college and hospital accompanied with his mother with the chief complaint of extra tooth erupting after the broken teeth. patient had a history of accidental fall down and avulsed 61 before 1 year. IOPA of that region shows fully formed mesiodens seen between 51 and exfoliating 61 region. Treatment plan was explained to the parent it was decided to retain the mesiodens and reshape it as lost 61 and follow up periodically till the eruption of the permanent incisor. if

mesiodens cause any disturbance to the erupting permanent teeth it was decided to be extracted at that stage

Figure 4.1: Presence of Mesiodens between 51 And 62 After Avulsion of 61

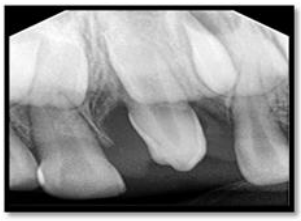

Figure 4.2: IOPA Shows Avulsed 61 and Presence of Mesiodens in The Place of 61

Figure 4.3: After 3 Months Position of Mesiodens Changes

Figure 4.4: After 6 Months, The Position Of Mesiodens Looks Like Erupted Teeth

Figure 4.5: After Composite Buildup of Mesiodens as A Retained Tooth

Discussion

The origin of different types of supernumerary teeth remains inconclusive. Multiple tuberculate supernumerary teeth occurring in the absence of any syndrome have rarely been reported[14]. In case 1, we observed tuberculated supernumerary teeth (1 erupted & 1 unerupted). Yusof et al. reported that tuberculate supernumerary teeth result in delayed and displacement of upper anterior teeth but the child does not suffer from any syndromes[15]. The observed supernumerary teeth were inverted as similar to the finding of tay et al[17]. It is important to identify the position and condition of the teeth both clinically as well as radiographically for the definitive treatment plan and management of the supernumerary teeth. In symptomatic cases, early surgical removal is recommended[16]. However, in asymptomatic cases, observation may be preferred, as in Case 4. In the present cases, there was a very low risk of iatrogenic damage to the adjacent permanent incisors. Also, the surgical procedure was simple; patients were cooperative and more receptive to surgical management under local anesthesia and thus easier to manage. However, when unerupted teeth are symptomless, they do not appear to affect dentition in any way; it is best to be left in place and kept under observation. The treatment depends on its impact on succedaneous teeth, either to be retained or observed or removed

Conclusion

Supernumerary teeth are present with a variety of complications. The dentist should have thorough knowledge of the presence of supernumerary teeth, including alterations in the eruptive pattern, crowding, midline shift, diastema formation, and delayed or no eruption. On proper diagnosis of supernumerary teeth early intervention is required in the form of surgical

intervention or orthodontic treatment or a combination treatment of both to minimize unwanted side effects to the developing dentition. The cases described in this study report represent a small sample of the possible presentations for cases involving supernumerary teeth in permanent as well as primary dentition.

References

1. Brook AH. University of London; 1974. An epidermiological study of dental anomalies in English school children with a detailed clinincal and genetic study of a selected group. M.D.S. Thesis. [Google Scholar] [Ref list]
2. Rajab LD, Hamdan MA. Supernumerary teeth: Review of the literature and a survey of 152 cases. Int J Paediatr Dent. 2002;12:244–54.
3. Umweni AA, Osunbor GE. Non-syndrome multiple supernumerary teeth in Nigerians. Odontostomatol Trop. 2002;25 :43–8.
4. Gibson N. A late developing mandibular premolar supernumerary tooth. Aust Dent J. 2001;46:51–2. [PubMed] [Google Scholar]
5. Alberti G, Mondani PM, Parodi V. Eruption of supernumerary permanent teeth in a sample of urban primary school population in Genoa, Italy. Eur J Paediatr Dent. 2006;7(2):89–92.
6. Van Buggenhout G, Bailleul-Forestier I. Mesiodens. Eur J Med Genet. 2008;51(2): 17881.
7. Shah A, Gill DS, Tredwin C, et al. Diagnosis and management of supernumerary teeth. Dent Update. 2008;35(8):510–520. doi: 10.12968/ denu.2008. 35.8.510.
8. Smith JD. Hyperdontia: Report of a case. J Am Dent Assoc. 1969; 79:1191–2.
9. Liu JF. Characteristics of premaxillary supernumerary teeth: A survey of 112 cases. ASDC J Dent Child. 1995;62:262–5.
10. Brook AH. A unifying etiological explanation for anomalies of human tooth number and size. Archs Oral Biol. 1984; 29:373–8. [PubMed] [Google Scholar] [Ref list]
11. Stellzig A, Basdra EK, Komposch G. Mesiodentes: incidence, morphology, etiology. J Orofac Orthop. 1997;58(3):144–153. doi: 10.1007/ BF02676545. [PubMed] [CrossRef] [Google Scholar] [Ref list]
12. Townsend GC, Richards L, Hughes T, et al. Epigenetic influences may explain dental differences in monozygotic twin pairs. Aust Dent J. 2005; 50(2):95–100. doi: 10.1111/ j.1834-7819.2005. tb00347.x. [PubMed] [CrossRef] [Google Scholar] [Ref list]
13. Gorlin RJ, Cohen MM, Hennekam RC. Syndromes of the head and neck. 4th ed. Oxford: Oxford University Press; 2001. pp. 547–1108. [Google Scholar] [Ref list]
14. Primosch RE. Anterior supernumerary teeth assessment and surgical intervention in children. Pediat Dent 1981;3:204-14.
15. Yusof WZ. Non-syndrome multiple supernumerary teeth: Literature review. J Can Dent Assoc 1990;56:147-9.
16. Scheiner MA, Sampson WJ. Supernumerary teeth: A review of the literature and four case reports. Aust Dent J 1997;42:160-5.
17. Tay F, Pang A, Yuen S. Unerupted maxillary anterior supernumerary teeth: Report of 204 cases. ASDC J Dent Child 1984;51:289-94.