



Case Report

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NON-SYNDROMIC MULTIPLE SUPERNUMERARY TEETH: A CASE REPORT

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Abstract


Supernumerary teeth may be defined as any teeth or tooth substance in excess of the full complement of primary and permanent teeth. Multiple impacted supernumerary teeth are rare. This case report presents a case with nonfamilial and nonsyndromic multiple supernumerary teeth. 9-year old male patient referred with the chief complaint of the unpleasant appearance of his anterior teeth to Department of Pediatric Dentistry, University of Ondokuz Mayıs, Turkey. Medical and family histories were noncontributory. Extraoral findings did not show any abnormality. Intraoral examination revealed many deep caries lesions and a supernumerary tooth between his maxillary central incisor teeth. Radiographic examination revealed the presence of eleven supernumerary teeth in all four quadrants. The proposed treatment plan consisted of extraction of the erupted and unerupted supernumerary teeth in order to immediately initiate orthodontic treatment. The supernumerary teeth were surgically removed and sent for histopathological examination, which revealed features which are suggestive of odontoma of the compound type. At present the patient is undergoing orthodontic treatment and his regular clinical and radiographic follow ups scheduled. This case highlights the treatment options of a patient with multiple supernumerary teeth and the need for multidisciplinary planning and treatment.


Keywords: Hyperdontia, Nonsyndrome, Odontoma, Supernumerary teeth

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1. Introduction

Supernumerary teeth may be defined as any teeth or tooth substance in excess of the full complement of deciduous and permanent teeth (Schulze, 1970). They are

twice more common in the permanent than in the primary dentition (1.5% to 3.5% - 0.3% to 0.6%) and the male to female ratio is 2:1. Supernumerary teeth may occur singly, multiply, unilaterally or bilaterally in the

maxilla, mandibula or both. Rarely, it can occur in all the four quadrants of the jawbone (Singhvi et al., 2013).

Over 20 syndromes and developmental conditions have been found to be associated with single and multiple supernumerary teeth developing as part of systemic conditions such as Cleidocranial dysplasia, Gardner syndrome, and cleft lip and palate. The occurrence of multiple supernumerary teeth without any associated systemic conditions or syndromes, however, is a rare phenomenon (Acikgoz et al., 2006).

Supernumerary teeth can create a variety of clinical problems such as crowding, delayed eruption, diastema, rotations, cystic lesions, and resorption of the adjacent teeth (Rajab and Hamdan, 2002). Hence, suitable treatment after proper clinical and radiographic evaluation is essential.

The aim of this report is to document a case of non-familial occurrence of multiple supernumerary teeth occurring as an isolated non-syndromal trait and to discuss the treatment modalities.

2. Case Presentation

A 9-year old boy referred with the chief complaint of the unpleasant appearance of his anterior teeth to Department of Pediatric Dentistry, University of Ondokuz Mayıs, Turkey. His medical and family histories were noncontributory. The extra-oral findings did not show any abnormality. The intra-oral examination revealed the patient in mixed dentition has Class I molar relationship, supernumerary tooth between his maxillary central incisor teeth, and also many deep caries lesions. Radiographic examination revealed the presence of eleven supernumerary teeth in all four quadrants (Figure 1).



Figure 1. Radiographic appearance of the case before the treatment.

The treatment objectives and alternatives were explained to the patient and his parents who provided their written consent prior to treatment. The proposed treatment plan consisted of extraction of the erupted and unerupted supernumerary teeth in order to immediately initiate orthodontic treatment. The surgical removal of the impacted supernumerary teeth and the deciduous teeth was carried out under general anesthesia because of non-cooperation of the patient. Tooth specimens were sent for histopathological examination. The decalcified section, when stained with H/E, showed tooth like structure. A

varying amount of enamel matrix, dentin and pulp like tissue was seen in specimens. These features were suggestive of odontoma which was of the compound composite type.

At present, the early treatment goals were achieved without complication and the patient is undergoing orthodontic treatment. His regular clinical and radiographic follow ups were scheduled (Figure 2).

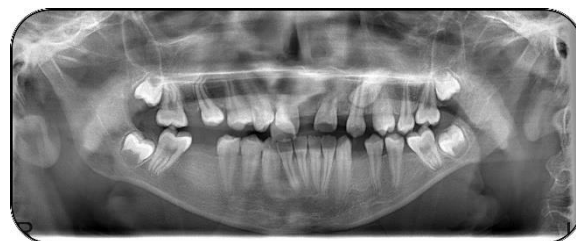


Figure 2. Radiographic appearance after the extraction of supernumerary teeth.

3. Results and Discussion

The literature describes different management options for patients with multiple hyperdontia not associated with any syndromes. Treatment is partly dependent upon the position and clinical manifestations of the supernumerary tooth (Garvey et al., 1999).

Many supernumerary teeth are impacted and also are asymptomatic. If unerupted supernumerary teeth are symptomless and do not appear to be affecting the dentition in any way, it could be best left in place and kept under observation (Singhvi et al., 2013). Consequently, most such teeth constitute casual findings in the context of routine X-ray studies (Acikgoz et al., 2006; Rajab and Hamdan, 2002).

A number of supernumerary teeth are associated with disruptive eruption of permanent teeth, which could be delayed eruption or non-eruption of permanent teeth, displacement or rotation of the latter, absorption of roots or of adjacent teeth, root malformations secondary to the pressure exerted by the supernumerary teeth, and the development of cysts (Maddalone et al., 2018). In such cases, treatment usually involves surgical removal of the obstruction, orthodontic space creation, observation of spontaneous eruption, and tooth extraction (Lygidakis et al., 2015). However, opinions differ concerning the optimal time for surgical intervention (Hogstorm and Andersson, 1987). Some recommend removal as soon as it has been diagnosed to prevent loss of eruption potential, loss of space and midline shift, and more extensive surgical and orthodontic treatment for correction (Hogstorm and Andersson, 1987). But this could create dental phobia problems for a young child and has been reported to cause devitalization or deformation of adjacent teeth (Gupta and Marwah, 2012). Others favor postponing surgery until root development of the adjacent teeth is complete (Gupta and Marwah, 2012). The potential disadvantages associated with this deferred

surgical plan include loss of eruptive force of adjacent teeth, loss of space and crowding of the affected arch, and possible midline shifts. Obviously, the position, size, and nature of the supernumerary tooth and the level of cooperation of the patient will influence the surgical difficulty; hence, each case should be analyzed individually.

Supernumerary teeth in this case were causing crowding in both jaws and obstructing eruption of permanent premolar teeth. Because of that, it was decided to extract the erupted and retained supernumerary teeth and primary molars. Then the treatment was followed by orthodontic treatment in order to establish a correct occlusion. In our opinion, it is important to initiate appropriate consultation and an interdisciplinary approach for treatment.

Thus, an early diagnosis is very important in order to decide among extraction, extraction followed by orthodontic treatment, or simply monitorization and control of the supernumerary teeth, with a view to minimizing the risk of complications secondary to the presence of these teeth (Oz et al., 2015). For the multiple supernumerary teeth, each case must be considered individually, concerning its treatment, taking into account untoward developments like displacement, rotation, resorption of the adjacent teeth, formation of primordial cysts, etc. Close observation with regular radiographical controls is recommended in such cases.

We emphasize the importance of a good clinical history when a patient with multiple supernumerary teeth comes for consultation, since most of them are associated with other syndromes and their presence must be discarded.

4. Conclusion

Supernumerary teeth can cause a variety of complications. The clinical and radiographic exam is of vital importance to carry out a good treatment plan, which can vary from simple extractions or extractions followed by orthodontic treatment to obtain a correct

occlusion. When diagnosis is made, each case should be managed properly to minimize complications to the developing dentition including consultation with an orthodontist. This case highlights a treatment option of a patient with multiple supernumerary teeth and also the need for multidisciplinary planning and treatment.

Conflict of interest

The authors declare that there is no conflict of interest.

References

- Acikgoz A, Acikgoz G, Tunga U, Otan F. 2006. Characteristics and prevalence of non-syndrome multiple supernumerary teeth: A retrospective study. *Dentomaxillofac Radiol*, 35(3): 185-190.
- Garvey MT, Barry HJ, Blake M. 1999. Supernumerary teeth-an overview of classification, diagnosis and management. *J Can Dent Assoc*, 65(11): 612-616.
- Gupta S, Marwah N. 2012. Impacted Supernumerary teeth-early or delayed intervention: decision making dilemma? *Int J Clin Pediatr Dent*, 5(3): 226-230.
- Hogstrom A, Andersson L. 1987. Complications Related to surgical removal of anterior supernumerary teeth in children. *ASDC J Dent Child*, 54(5): 341-343.
- Lygidakis NN, Chatzidimitriou K, Theologie-Lygidakis T, Lygidakis NA. 2015. 'Evaluation of a Treatment protocol for unerupted maxillary central incisors: retrospective clinical study of 46 children. *Eur Arch Paediatr Dent*, 16(2): 153-164.
- Maddalone M, Rota E, Amosso E, Porcaro G, Mirabelli L. 2018. Evaluation of Surgical options for supernumerary teeth in the anterior maxilla. *Int J Clin Pediatr Dent*, 11(4): 294-298.
- Oz AA, Bas B, Oz AZ. 2015. The Diagnosis and management of multiple supernumerary teeth involving both jaws. *Int J Orthod Milwaukee*, 26(3): 45-48.
- Rajab LD, Hamdan MAM. 2002. Supernumerary teeth: review of the literature and a survey of 152 cases. *Int J Paediatric Dent*, 12(4): 244-254.
- Schulze C. 1970. Developmental abnormalities of the teeth and jaws. In Gorlin RJ Goldman HM (eds) *Thomas Oral Pathology*. St. Louis CV Mosby.
- Singhvi V, Nambiar S, Shetty S. 2013. Orthodontic management of non-syndromic multiple supernumerary teeth. *Contemp Clin Dent*, 4(4): 540-542.