

Case Report of Multiple Supernumerary Teeth in the Maxillary Anterior Region Causing Impaction of Permanent Maxillary Central Incisor.

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ABSTRACT

Excess of the normal number of teeth are called as supernumerary teeth. It may be either unilateral or bilateral, single or multiple, and can be seen anywhere in the dental arch with predilection for the maxillary anterior region. Multiple impacted supernumerary teeth are commonly accompanying with syndromes, but sometime can be idiopathic. In this case report, we present a case of 15 years old male patient reported with missing permanent maxillary central incisor. A radiograph revealed multiple impacted supernumerary teeth causing impaction of permanent maxillary central incisor. In such cases, management must be planned by a multidisciplinary approach.

Keywords: Supernumerary teeth, Multiple impacted teeth, Maxillary central incisor.

INTRODUCTION

Tooth development is a continuous process with involvement of physiologic growth processes and numerous morphologic stages interplay resulting in formation of the tooth's final form and structure.^[1]

Supernumerary teeth can be defined as teeth in addition to the normal series of deciduous or permanent dentition.^[2,3]

The prevalence for non-syndrome multiple supernumerary teeth is less than 1%, and the male-to-female ratio has been reported as 9:2. Hyperdontia with one to four supernumerary teeth may be localized in the upper anterior and molar region. Supernumerary teeth can lead to other complications like delayed eruption or non-eruption, displacement of permanent teeth, resorption or malformation of adjacent roots, and cystic formation (rarely).^[3]

Mesiodens are the supernumerary teeth with most common occurrence in the oral cavity. Other commonly associated teeth are maxillary fourth molars, maxillary premolars, mandibular premolars, maxillary lateral incisors, mandibular fourth molars, and maxillary premolars. In most cases, multiple supernumerary teeth are with other conditions or defects such as, cleft lip and palate, or with variable syndromes.^[4]

During the development of occlusion of teeth, a pediatric dentist is commonly challenged with situations in which deviations from the normal eruption sequence, position or abnormalities in the morphology of the teeth are observed. There are a series of factors that can encourage the normal development of the occlusion and thus interfere in the correct alignment of the teeth and their harmonic relationship with the adjacent and antagonistic teeth.^[5]

CASE REPORT

A 15-year-old male patient came with a chief complaint of missing permanent central incisor of right side reported to a private clinic in Kerala (India). In radiographic examination, impacted permanent maxillary central incisor and multiple supernumerary teeth were seen. [Figure 1] A preliminary diagnosis of impacted permanent maxillary central incisor due to supernumerary

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teeth like structure was made and surgical removal of teeth-like structure was planned.

Under local anesthesia, a full thickness flap was reflected from distal of 12 to middle of 21. The bone covering the tooth-like structure was removed. [Figure 2] All the supernumerary teeth were removed and crown of permanent maxillary central incisor was exposed. [Figure 3] Another radiograph was taken to check for any of the supernumerary tooth left at the surgical site. [Figure 4] Suturing was done with the help of 3-0 silk.



Figure 1: Pre-operative radiograph of the patient showing presence of multiple supernumerary teeth causing impaction of the permanent maxillary central incisor of right side.



Figure 2: Intra-operative photograph of the patient after removal of supernumerary teeth and exposing the crown of the permanent maxillary central incisor.



Figure 3: Extracted supernumerary teeth specimen.



Figure 4: Post-operative radiograph of the patient showing no further presence of supernumerary teeth.

DISCUSSION

Supernumerary teeth can be present in various region of the dental arch. It can be erupted or unerupted and usually found during routine radiographic examination. Multiple supernumerary teeth are rare without presence of any other associated diseases or syndromes.^[5,6]

Numerous terminologies have been used in the literature to describe this condition including polyphyodontism, hyperdontia, third dentition, supplemental, duplicate teeth, aberrant, hyperdontia and conoidal teeth.^[7]

The etiology of this condition is controversial and several hypotheses have been put forward like hyperactivity of the dental lamina, dichotomy of the tooth bud and a phylogenetic relic of extinct ancestral tissue. This condition arises as consequences from the interference during the initiation stage of tooth development. They can be present in the primary or permanent dentitions and often influence the adjacent permanent teeth by way of impaction, crowding, delayed eruption or ectopic eruption.^[5,6,8]

Extra teeth may develop in the route of normal eruption, assume an ectopic position, appear inverted, transverse, or follow an abnormal path of eruption.^[8]

It can be labeled as “real” if determined by an increased number of teeth, otherwise it is “false” if produced by a delay in shedding of deciduous teeth beyond the transition period.^[9]

Supernumerary teeth can presents with one or more of the following complications:-

- Prevention or delay of eruption of associated permanent teeth.
- Crowding.
- Displacement or rotation of permanent teeth.
- Incomplete space closure during orthodontic treatment.
- Root resorption of adjacent teeth.
- Dilacerations, delayed or abnormal root development of associated permanent teeth.^[1]

The most important part in the management of supernumerary tooth is identification of the complications associated with these teeth. These supernumerary teeth can be found using the intra-oral radiographs of varied methods. A periapical radiograph utilizing the paralleling technique gives more detailed localization compared to other radiographic views. If extra teeth are causing no complications and are not likely to interfere with tooth movement they can be monitored with only radiographic review.^[10]

CONCLUSION

Supernumerary teeth are comparatively less common but often lead to diverse complications. The clinician should be capable to identify the signs as early as possible signifying the existence of supernumerary teeth, predominantly in patients causing problems in eruption as seen with our presented case, and perform the relevant investigations and treatment.

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