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Case Report

SUPERNUMERARY TOOTH-A CASE REPORT

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ABSTRACT

Supernumerary tooth is a developmental anomaly with multiple etiologies. A hyperactive dental lamina where the localized and independent hyperactivity of dental lamina is the most accepted cause for the development of the supernumerary teeth. Supernumerary teeth may be embedded in the alveolar bone or can erupt into the oral cavity. Early detection of such teeth is most important to avoid complication. The aim of present article is to report the clinical case of a supernumerary tooth present in a 9 year old non syndromic patient.

Keywords: Supernumerary Tooth, Mesiodens, Maxilla.

INTRODUCTION

Supernumerary tooth is defined as “any tooth or odontogenic structure that is formed from tooth germ in excess of usual number for any given region of the dental arch. In the primary dentition, the incidence is said to be 0.3% to 0.8% and in the permanent dentition 1.5% to 3.5%. There is no significant sex distribution in primary supernumerary teeth. However males have been shown to be affected more in the permanent dentition than females¹. The most common location of supernumerary teeth is at the premaxillary region. Higher prevalence figures for supernumerary teeth were reported in Mongoloid groups than in other racial groups. The conical supernumerary teeth in anterior region are the most common type of supernumerary teeth. The incidence, location and morphology may vary depending on gender².

Supernumerary teeth can differ according to their location in the dental arch as mesiodens, paramolar, distomolar. However these types can vary in their morphological forms such as conical, tuberculate, supplemental or odontome³. The etiology of the supernumerary teeth however remains unclear. Several theories have been suggested for the occurrence such as “phylogenetic theory”, the “dichotomy theory”, a hyperactive dental lamina and a combination of genetic and the environmental factors-unified the etiologic explanation⁴.

The presence of supernumerary teeth may be part of developmental disorder such as cleft lip and cleft palate, cleidocranial disostosis, Gardners syndrome, Fabry’s

Anderson’s syndrome, Elli’s van creveld syndrome (chondro ectodermal dys-plasia) Ehler’s Danlos syndrome, Incontinentia pigmenti and Tricho Rhinophalangeal syndrome^{5,6}. The present article describes the management of a palatally placed supernumerary teeth in an eight year old male patient.

CASE REPORT

An 8 year old boy was reported with the chief complaint of presence of extra tooth in the palatal region. Patient had no significant medical history. The familial and dental histories were non contributory. Extra oral examination did not reveal any abnormalities.



Figure 1: Mirror image of palatally placed supernumerary tooth between 11 and 21

On Intra oral examination mixed dentition showed, clinically missing 12 and 22 and a conical shaped supernumerary tooth present palatal to 11 and 21.

Orthopantomograph and occlusal radiograph were taken to rule out the presence of supernumerary tooth elsewhere in the arch. Taking into consideration the radiographic findings and the age of the patient extraction of the supernumerary tooth was planned.



Figure 2: IOPA reveals the presence of supernumerary tooth between 11 and 21



Figure 3: Extracted supernumerary tooth

The tooth was extracted under Local Anesthesia (2% Lignocaine Hydro-chloride) without any complication. Patient was kept on antibiotic and anti inflammatory regimen for 3 days.

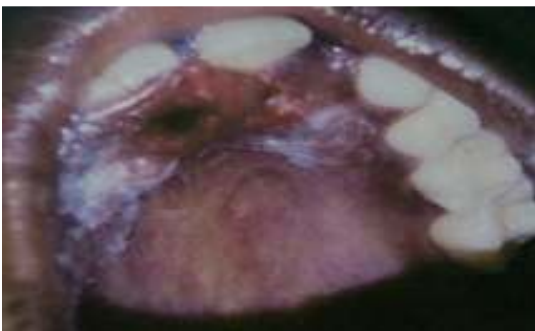


Figure 4: Healing socket in the palatal region

After 7 days of review the wound healing was satisfactory. Patient was called for regular follow up to monitor the wound healing.

DISCUSSION

Supernumerary tooth in the maxillary anterior region is of great concern to both dentist and the patient. Most of the supernumerary teeth present with one or more of the following complications such as:

- Root resorption of adjacent teeth.
- Displacement or rotation of permanent teeth
- Incomplete space closure during orthodontic treatment

- Prevention or delay of eruption of associated permanent teeth
- Crowding or diastema
- Dilacerations, delayed or abnormal root development of associated permanent teeth
- Complication with supernumerary itself
- Late-forming supernumerary teeth
- Retained tooth, ectopic eruption, functional problems.⁷

Supernumerary tooth may erupt normally, remains impacted, appear inverted or assume an abnormal path of eruption. Supernumerary teeth with a normal orientation will usually erupt. Remnants of excessive dental lamina or palatal extension of the active dental lamina are induced to develop additional tooth bud which results in supernumerary teeth.⁸ Supernumerary teeth and dental agenesis are the most common developmental abnormalities found in children. Supernumerary teeth may be impacted, but eventually some may be formed erupted in the month. They may present as single or multiple extra teeth, unilateral or bilateral in maxilla, mandible or both^{9,10}.

Most frequent location for supernumerary teeth are upper jaws, midline, palatal regions of upper incisors, lower bicuspid region, and distal region with respect to the third molar. Supernumerary teeth can also be found impacted, inverted and impacted associated to other dental anomalies, fused to a permanent tooth as well as associated to the gemination¹¹.

According to their location they can be classified as Mesiodens, Paramolar and Distomolar. In the case of supernumerary teeth, early diagnosis in paramount teeth to avoid complication. Diagnosis can be conducted through clinical and radiographic assessment. Treatment will depend upon supernumerary tooth position and class, as well as on the effect, this tooth exerts on primary or permanent dentition. Presence of supernumerary teeth which prevent eruption of permanent teeth, or deviate them from their proper position requires extraction¹².

There are two schools of thoughts for the removal of supernumerary teeth. The immediate approach calls for removal of supernumerary tooth soon after the initial diagnosis of their presence. The delayed approach recommends the intervention upon apical maturation of the central and lateral incisors at an age around eight to ten years. Thus in this patient, it is necessary to remove the supernumerary tooth under local anesthesia, since the patient was not able to tolerate the disturbance. Most supernumerary teeth are removed at the age of seven to nine years with peak at eight years old and some were done at a later age due to uncompleted root development of the central incisors and as a preventive measure against causing injury to the developing roots¹³.

CONCLUSION

Supernumerary teeth are relatively common and can cause variety of complications. It is important as a pediatric dentist to take appropriate measures at early ages in order to prevent or reduce orthodontic problems that could occur if the supernumerary teeth are not noticed. On diagnosis each case

should be managed appropriately in order to minimize complication to the developing dentition.

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