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CASE REPORT

**NON SYNDROME ASSOCIATED BILATERAL SUPERNUMERARY TEETH IN THE MAXILLARY
PREMOLAR REGION**

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ABSTRACT

Multiple supernumerary teeth without any associated systemic conditions or syndromes are not common. Multiple supernumerary teeth are usually associated with syndromes. This article presents a case report with bilateral supernumerary teeth in premolar region not associated with any syndromes and emphasizes the routine advice of orthopantomogram whenever a single supernumerary tooth is detected irrespective of whether the patient has any syndrome or not.

Key Words: *Supernumerary Teeth; Non-Syndrome; Supplemental Teeth; Premolar*

INTRODUCTION

A supernumerary tooth is defined as an extra tooth that develops in addition to the normal number found in dentition. (1) supplemental tooth is defined as tooth that may resemble tooth of the normal series. Supernumerary tooth usually occurs singly, although the occurrence of multiple supernumerary teeth (i.e. 3 or more) has been found in 4.6% of reported cases. (2) Approximately 90% of all supernumerary teeth occur in the premaxillary region, 93% of which are in central incisor region, with 25% of those located in the midline. Of the other 10%, about 4% and 1.5% are located in the mandibular premolar and maxillary canine regions respectively. (2) Although there are many reports of bilateral supernumerary teeth, cases with bilateral supernumerary teeth in the maxillary premolar regions are extremely rare.

This paper describes a case of bilateral supernumerary teeth located in the maxillary premolar regions in a patient with permanent dentition.

CASE-REPORT

A 13 year old boy came with a complaint of irregularly arranged teeth to the department of Pedodontics and Preventive Dentistry, Career Post Graduate Institute Of Dental Sciences & Hospital Lucknow. Clinically an extra tooth was there in the palatal aspect of maxillary right side. The family and medical histories were non contributory. General extra oral examination showed convex facial profile of the patient.

Intra oral Examination revealed Dentition to be

17 16 S 15 14 13 53 12 11 21 22 63 24 25 26 27
47 46 E 45 44 43 42 41 31 32 73 34 35 E 36 37

Buccal cross bite present on the right side. On maxillary palatal left side, a bulge was found in the premolar region. Mild anterior crowding in both upper and lower anterior region. Stained fissure found in 16, 26, 36 and 46. Root stumps found in relation to 75 and 85. An intra oral Periapical radiograph was advised in relation to 14, 15 and an orthopantomograph was advised to rule out the presence of any impacted supernumerary tooth.

Orthopantomograph images identified an extra impacted supernumerary tooth on maxillary left side in the region of premolar.

17 16 S 15 14 13 53 12 11 21 22 63 24 25 S 26 27
47 46 E 45 44 43 42 41 31 32 73 34 35 E 36 37

The treatment plan included oral prophylaxis, fluoride application, extraction of root stump in relation to 75 and 85 and supernumerary teeth(S).

The patient was informed about the presence of additional number of teeth and was advised extraction of the same. As family history, medical history, general examination and extra oral examinations were non contributory, the diagnosis of non-syndrome associated supernumerary was made. The patient was explained about the consequences of supernumerary teeth. Patient was willing for extraction and extraction of root stumps in relation to 75 and 85 and supernumerary tooth present on maxillary right side was done and advised regular follow-ups.



Figure 1: Intra-oral photograph showing one supernumerary tooth in the maxillary arch (Right)



Figure 2: Intra-oral photograph showing root stumps in the mandibular arch (Right and left)



Figure 3: Intra-oral photograph showing buccal cross bite on the right side



Figure 4: Intra-oral Periapical radiograph of 14, 15 region

DISCUSSION

Supernumerary teeth are those that are in excess of normal complement and mimic the normal shape. (3) Literature reports the prevalence of supernumerary tooth within the mandible and maxilla varying from 0.2- 0.9%. (4) They may occur in any region of dental arch with a particular predilection for the maxilla.⁵ They may occur singly, multiple, unilaterally or bilaterally, and in one or both jaws. The exact etiology of supernumerary tooth is still obscure although many theories have been proposed. Two popularly accepted theories are –

1. Hyperactivity theory, which suggests that supernumeraries are found as a result of local, independent, conditioned hyperactivity of dental lamina. (6)
2. Another theory states that the supernumerary tooth is formed because of dichotomy of tooth bud. (7)

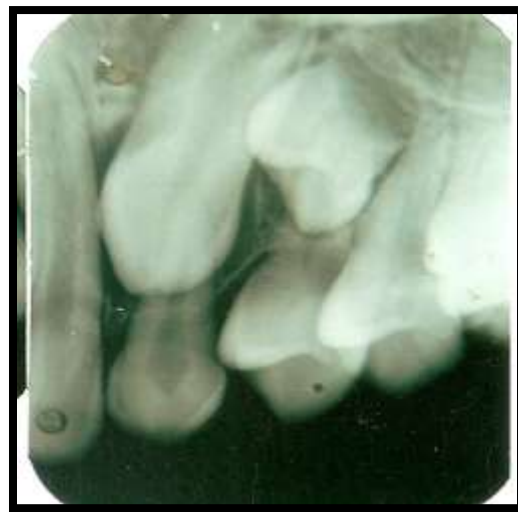


Figure 5: Intra-oral Periapical radiograph of 24, 25 region

Hereditary and environmental factors are also considered important etiological factors in the occurrence of supernumerary tooth. Brook found that supernumerary teeth were present in 0.8% of primary dentition and in 2.1% of permanent dentition. (6) While there is no significant sex distribution in primary supernumerary tooth, males are affected approximately twice as frequently as females in permanent dentition. (6)

Classification of supernumerary teeth⁵-

- **According to morphology**
 - 1) Accessory
 - 2) Supplemental
- **Based on syndrome**
 - 1) Non- syndrome
 - 2) Syndrome associated.-
 - Cleidocranial dysplasia
 - Gardener’s syndrome
 - Down’s syndrome
 - Crouzon’s disease

It has been stated that supernumerary teeth recurrence could be due to a portion of follicle reactivating, but this can not explain why in some cases new supernumerary teeth appeared in different areas. Another possible mechanism is the dental lamina not resorbing completely and reactivating at the time of crown completion of normal permanent teeth. (8)

Multiple supernumerary teeth by itself are a rare condition. Yusof in 1990 reviewed that multiple supernumerary premolars, unrelated to syndromes, are reported to occur more commonly in mandible than the maxilla. (9) When analysed according to specific sites for both jaws, there was a predominance of the multiple supernumerary teeth to occur in the premolar area. This was true even for our cases as the supernumeraries were found in the premolar areas, but in maxilla. Saini et al reported the prevalence of retained primary molar roots in the premolar region in an adult population. (10)

The current literature supports the surgical removal of unerupted supernumerary tooth, although this may cause damage to adjacent teeth and structures, particularly in the mandibular premolar region resulting in the loss of vitality and root malformation of adjacent teeth. The surgical removal of supernumerary tooth should always be based on the possible pathological sequelae associated with supernumerary tooth. The most common complications associated with supernumerary tooth in the premolar area are cyst formation (9%) and damage to neighbouring teeth (13%). (11)

Not all supernumerary teeth require extraction. If it is asymptomatic, it can be left insitu and kept under observation. It should also be noted that whenever a single supernumerary tooth is seen, an orthopantomogram should be advised as a part of routine investigation to rule out the presence of



multiple supernumerary teeth, if any.



Figure 6: Orthopantomograph showing additional supernumerary tooth on maxillary left side

Figure 7: Photograph showing extraction of supernumerary tooth on right side of maxillary arch

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