

Non-syndromic, Bilateral Occurrence of Maxillary and Mandibular Para Premolars: A Case Report

Abstract:

Bilateral occurrence of supernumerary teeth is rare and most often found in association with any systemic condition or syndrome. Very few cases with bilateral maxillary and mandibular supernumerary teeth in the premolar region have been documented. This report presents an unusual case of non-syndromic, bilateral maxillary and mandibular para-premolars.

Key-words: Supernumerary teeth, non-syndromic, Orthopantomograph, Para-premolar

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”. [1] Supernumerary teeth can be found more frequently in permanent dentition than primary dentition. While there is no sex predilection for primary supernumerary teeth, males are affected approximately twice as frequently as females in the permanent dentition. Supernumerary teeth have different forms and may be erupted or impacted, single or multiple, unilateral or bilateral, and located in one or both jaws. Supernumerary teeth are detected on a radiograph; as an incidental finding or a cause for failure of eruption of permanent teeth. Presence of supernumeraries in the relatives of affected children confirms, heredity may play a role in its occurrence. [2]

Prevalence of supernumerary teeth within the mandible and maxilla varying from 0.2-0.9%. They may occur in any region of dental arch with a particular predilection for the maxilla. [3]

There is predilection of non-syndrome multiple supernumerary teeth to occur in the mandible with predominance to occur in the premolar area, followed by the molar and the anterior regions respectively.

Supernumerary teeth can be classified according to their morphology as conical, tuberculate, supplemental and odontoma; according to their location as a mesiodens, para premolar, para molar or distomolar. They can also be classified based on whether or not they are associated with any syndrome as 'syndrome associated supernumerary teeth' and 'non-syndrome associated supernumerary teeth' respectively. [2,3,4]

Multiple supernumerary teeth are reported to be associated with conditions such as cleft-lip and palate, cleidocranial dysplasia and Gardners syndrome. However, the presence of multiple supernumerary teeth in the absence of associated systemic condition or syndromes is rare [2,4].

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Presence of bilateral supplemental premolars in both arches is extremely rare. We describe the occurrence of non-syndromic multiple parapremolars in a male patient.

Case Report:

A 35-year-old male patient reported to the private dental clinic with department the chief complaint of pain in the upper left back tooth region. The family, medical and dental histories were non-contributory. The patient was healthy with no mental retardation. General examination and extraoral examination did not reveal any abnormality; which is suggestive of any systemic condition or syndrome. (Image 1).



Extra oral photograph of the face to exclude syndromic abnormalities.

Intra oral examination revealed presence of full complement of permanent teeth and supernumerary teeth were present in all four quadrants. A deep carious lesion with pulpal involvement was present in relation to 25.

In the upper arch, four erupted supernumerary teeth were present. On the right side, one supplemental tooth was located in between 13 and 14 and the other tooth resembling conical shaped crown was present palatal to 15 and 16 without any displacement of the permanent teeth. On the left side, one tooth resembling triangular shaped crown and other resembling round shaped crown were located palatal to 25; causing slight buccal displacement of the same.

In the lower arch, three erupted supplemental teeth resembling premolars were present without any displacement of adjacent teeth. One supplemental tooth was located lingual to 34 and 35. On the right side, two supplemental teeth were present; of which one was lingual to 44 and 45 and the other was lingual to 45 and 46 (Image 2).

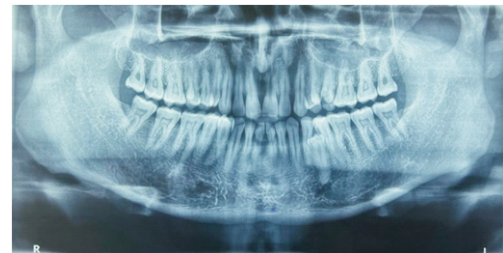


Intraoral photograph of maxillary and mandibular arch showing multiple supernumerary teeth in premolar region

An Orthopantomograph was taken to rule out any underlying pathology or unerupted supernumerary teeth. Supplemental supernumerary teeth showed a small crown-root proportion with a conical-shaped root and without bone or root resorption. (Image 3).

IMAGE 3

Orthopantomograph showing multiple supernumerary teeth



It was decided to treat 25 endodontically, followed by crown restoration and to extract supernumerary teeth adjacent to 25. As the remaining five para-premolars did not cause any problem, they were left in place and patient was advised to report regularly for periodic check-up.

Discussion:

The exact aetiology of supernumerary teeth is still not well known. Out of proposed theories, two popularly accepted theories are:

- The dichotomy of the tooth germs states tooth bud split leads to formation of supernumerary tooth
- Another theory suggests that supernumerary teeth are formed as a result of local independent conditioned, hyperactivity of the dental lamina [5,6].

According to some researchers, multiple supernumerary teeth are a part of post permanent dentition.[7] The exact mode of inheritance has not been established; however, a familial tendency has been noted. There are few cases of multiple supernumerary teeth published in the literature not associated with complex syndromes [8].

Then on-syndromic multiple supernumerary premolars occur more frequently in mandible and are generally of supplemental type. Occasionally, supernumerary premolars are conical or smaller than normal particularly seen in maxilla. 75% supernumerary teeth in premolar region found to be unerupted. [9]

Occasionally, supernumerary teeth may be totally asymptomatic and may be detected as a chance finding during radiographic examination. The presence of multiple supernumerary teeth is usually associated with problems of displacement, rotation, ectopic eruption of the adjacent teeth, resorption of the adjacent teeth and even the formation of primordial cysts. [10]

In our documented case, complete set of permanent dentition was present in normal occlusion and the patient was completely asymptomatic and the presence of supernumerary teeth was an incidental finding.

Management of supernumeraries depend on the type and position of the supernumerary tooth and on its effect or potential effect on adjacent teeth. The treatment modality includes either the supernumerary tooth removal or its monitoring without removal.

Extraction is recommended where there is failure of eruption of permanent teeth or potential complications such as crowding, root resorption, impaction and cyst formation. The extraction of supernumerary teeth should be carried out carefully, without causing damage to the roots of the adjacent teeth and adjacent anatomical structures. In case of unerupted supernumerary tooth, it is generally better to wait till the root completion of the teeth in its vicinity, before its extraction.

Otherwise, periodic monitoring is indicated If the supernumerary teeth are not causing any complications and also do not interfere with orthodontic treatment.

Conclusion:

Supernumerary tooth can be asymptomatic or diagnosed on associated symptoms or radiographic examination Thus, the management of a supernumerary tooth should be part of a comprehensive treatment plan and should not be considered in isolation.

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