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Non- Syndromic Multiple Impacted Supernumerary Teeth: Report of a Case with 15 Supplemental Teeth

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Abstract:

The presence of unerupted supernumerary teeth can be suspected where there is abnormal axial inclination of teeth in an area, local spacing especially in the upper central incisor region or failure of permanent teeth to erupt. Although multiple impacted supernumerary teeth without any associated syndromes are rare, their occurrence can create a variety of clinical problems such as derangement of the occlusion, prevention of eruption of permanent teeth, damage to adjacent teeth, cystic degeneration and root resorption. Hence, radiographic evaluation of patients should always be thorough in order to detect their presence. The fact is herewith emphasized with a report of a case; A 20 year old male who was detected with 15 multiple impacted supernumerary teeth without any associated disorders or syndromes, which can be considered as rare, as the maximum number of impacted supernumerary teeth reported in the literature, were 14.

Key words: Supernumerary teeth, syndromes, developmental disorders, OPG

1. Introduction

Supernumerary teeth denote teeth formed in excess of that found in normal series. They may be varied in form, occurring in either primary or permanent dentition. These may be single, multiple, unilateral, bilateral, and malformed morphologically or be of normal shape and size. They may erupt or remain impacted. They may occur in maxilla, mandible or in both the jaws, occurring more frequently in males, with Male: Female (M: F) ratio of 2:1¹. Supernumerary teeth may be associated with many of the genetic syndromes like Cleidocranial dysostosis, Gardner's syndrome etc. Detection of the multiple supernumerary teeth could hint towards the possibility of these syndromes.

2. Case Report

A 20 years old male patient reported to the Department of Oral Medicine and Radiology with a complaint of over-retained deciduous teeth and delayed eruption of permanent teeth. The clinical examination confirmed such complaints. Intra oral examination revealed absence of permanent teeth with over retained deciduous teeth in all the four quadrants. No relevant findings suggestive of a syndromic origin were elicited from family and medical history. OPG (Orthopantomogram) which was required as a routine investigation prior to treatment revealed, teeth belonging to the permanent dentition along with multiple impacted supernumeraries in the location designated in Figure 1. A total number of 32 teeth were seen as impacted, 17 of which were impacted permanent teeth and 15 were unerupted supernumerary teeth, and these were resembling canine, premolars and molars with various stages of root completion radiographically. Based on the above dental findings and the absence of any associated disorders or syndromes we arrived at a diagnosis of non-syndromic multiple impacted supernumerary teeth. Patient was advised for CBCT (cone beam computed tomography) for further evaluation, but unfortunately patient did not turn up for further follow up.

3. Discussion

Increase in number of teeth that may or may not resemble the normal series are termed as “supernumerary teeth”¹. Vary rarely three or more supernumerary teeth are seen in the same individual. Such multiple teeth are usually associated with developmental disorders or syndromes like Gardner’s Syndrome, cleidocranial dysostosis and cleft lip and palates. Multiple supernumerary teeth associated with syndromes contribute to approximately 1% and accounts for a much lesser percentage among which the cases are more common in males². Review of case reports relates mandibular premolars to be the commonest site to be affected², a pattern observed in 10 of the 15 supernumerary teeth in our case. The exact etiology of the supernumerary teeth is still not totally understood. In fact, numerous exogenous factors can interfere with odontogenesis. Some authors have reported that tooth anomalies can result from a complex interplay of genetic factors and developmental processes³. One interesting theory, supported in the literature, suggests that the local and independent hyperactivity of dental lamina results in an excessive proliferation of cells, which results in the formation of extra tooth buds⁴. Supernumerary teeth are classified based on their form into conical supernumerary, tuberculate type, supplemental type, odontome and based on their position they are classified into Mesiodens Paramolars, Distomolar, and Parapremolar⁵. All the 15 supernumerary teeth in our case belonged to the supplemental variety, 11 of them were resembling premolars, 3 were resembling canines and one was resembling molar. Supernumerary teeth are generally indolent with no clinical symptoms but rarely do contribute to various complications such as delay or impediment of eruption of normal tooth, crowding, retention of deciduous teeth, diastema, dilacerations, and development of odontogenic cysts, root resorption of adjacent teeth and fracture of mandible⁶. Among which, impediment of eruption of normal tooth and retention of deciduous teeth were seen in our case too. Supernumerary teeth are usually impacted and mostly inverted in position⁷. All 15 of the Supernumerary teeth were impacted in our case and all the teeth were oriented normally. Definitive diagnosis and proper treatment plan can only be formulated after appropriate clinical and radiological assessment. The assessment should also be capable of including or excluding a syndrome in association with the multiple unerupted supernumeraries. Observation and follow-up radiographs may be the only treatment necessary if impacted teeth are asymptomatic and show no evidence of cyst formation. Radiological assessment should be periodical.

4. Conclusion

Detailed family history, thorough clinical examination and routine radiographic examination may reveal the presence of multiple impacted supernumerary teeth and their association with the other conditions or syndromes. These conditions must not be overlooked and the impacted tooth must be extracted or surgically made to erupt to allow the restoration of normal architecture of the bone mass, which will prevent the fracture of bone in response to force. Observation and periodic follow-up of radiographs may be necessary if the impacted teeth are asymptomatic.

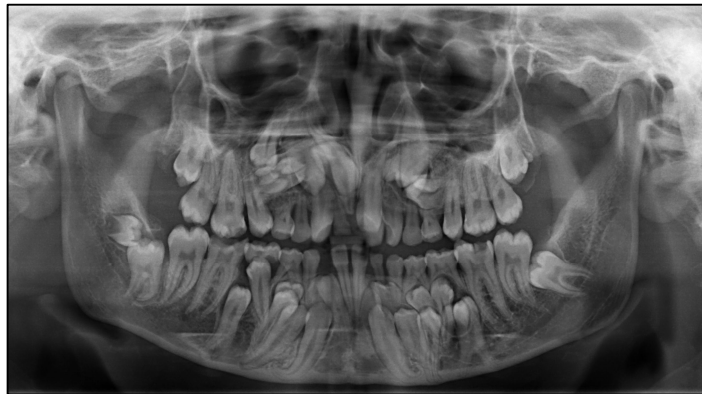


Figure 1: Orthopantomograph Showing 15 Multiple Impacted Supernumerary Teeth In All The Four Quadrants

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