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MULTIPLE IMPACTED SUPERNUMARY TEETH – A RARE CASE REPORT

[1]Agarwal Anirudh [1] *Professor and Head, Department of Orthodontics and Dentofacial Orthopedics*
[2] Dhawal Goyal [2] *Senior Lecturer, Department of Oral and Maxillofacial surgery*
[3] Gaurav Pal Singh [3] *Senior Lecturer, Department of Prosthodontics*

[1,2,3] Rajasthan Dental College, Jaipur. India

ABSTRACT

While impaction of tooth is widespread, multiple impacted teeth by itself is a rare condition and is found in association with syndromes such as cleidocranial dysplasia or Gardner's syndrome. This paper describes a young male who didn't possess any systemic conditions or syndromes with forty six multiple impacted teeth involving both jaws. Based on the clinical presentation, radiographic examination and histopathological studies, this paper discusses the differential diagnosis and management of such cases.

KEY WORDS: Impacted Teeth, Supernumerary Teeth, Cleidocranial syndrome, Gardner's syndrome

INTRODUCTION

An impacted tooth is any tooth that is prevented from reaching its normal position in the oral cavity by tissue, bone or another tooth. Impaction of teeth can result firstly from local biomechanical impediments, and secondarily from childhood maxillofacial or dentoalveolar trauma, reconstructive surgery of the facial skeleton, malpositioning of an adjacent tooth, thickened overlying osseous or mucosal tissues, insufficient maxillofacial skeletal development or a low correlation between maxillofacial skeletal development and tooth maturation, eruption disturbances and direct or indirect effects of cysts or neoplasm.[1] A host of systemic prenatal and postnatal disorders, diseases and syndromes can also cause tooth impaction. Therefore, it is prudent to perform a thorough clinical examination and obtain adequate radiographs when teeth do not appear according to the usual eruption schedule.[1]

Case Report

A 21 year old male patient (**Fig. 1**) was referred to our clinic with complain of failure of eruption of the upper and lower anterior teeth. No significant medical history was detected, and he was born by normal delivery. General clinical examination reveled his height was 4 feet 11 inches and weight was 60 kg. Ophthalmic and neurological examination of the patient revealed no clinical significant symptoms. Intelligence was subject to normal.

Extra-oral examination revealed a brachycephalic head type, with marked frontal bossing and severe naso-maxillary hypoplasia (**Fig.2 and Fig.3**). On intraoral examination (**Fig. 4**), soft tissues were unremarkable and the patient was in the mixed dentition phase. Fully erupted permanent teeth were 16, 26, 36,37,46,47 and all deciduous teeth were over-retained except 52,62,72,82. The following teeth were not erupted 11,12,13,14,15,17,21,22,23,24,25,27,31,32,33,34,35,,41,42,43,44,45.

Radiological evaluations of the clavicles, vertebral skeleton, and chest proved to be normal. Results of routine hematology tests and karyotyping (46, XY) were normal. Radiologically 46 unerupted supernumerary teeth were noted (**Fig .5**). The histopathological evaluation of gingivae was normal.

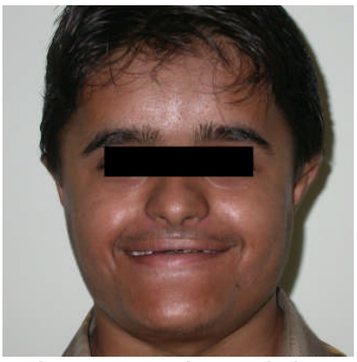

Fig 1: Extra-oral Frontal View

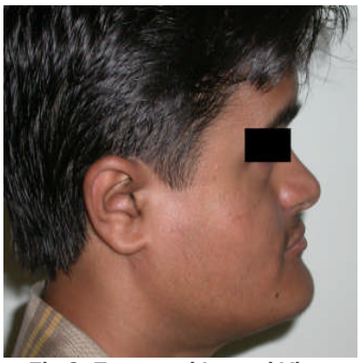

Fig 2: Extra-oral Lateral View

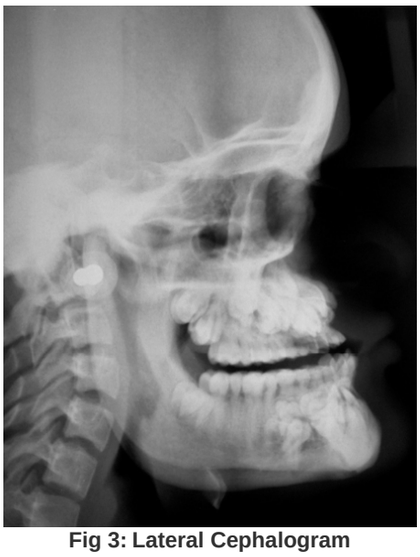

Fig 3: Lateral Cephalogram

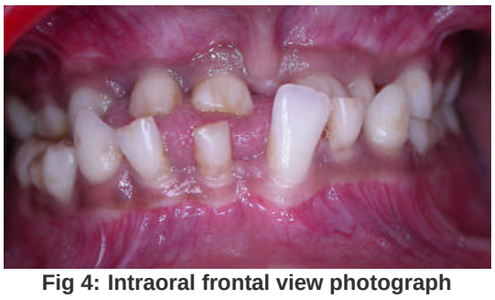

Fig 4: Intraoral frontal view photograph

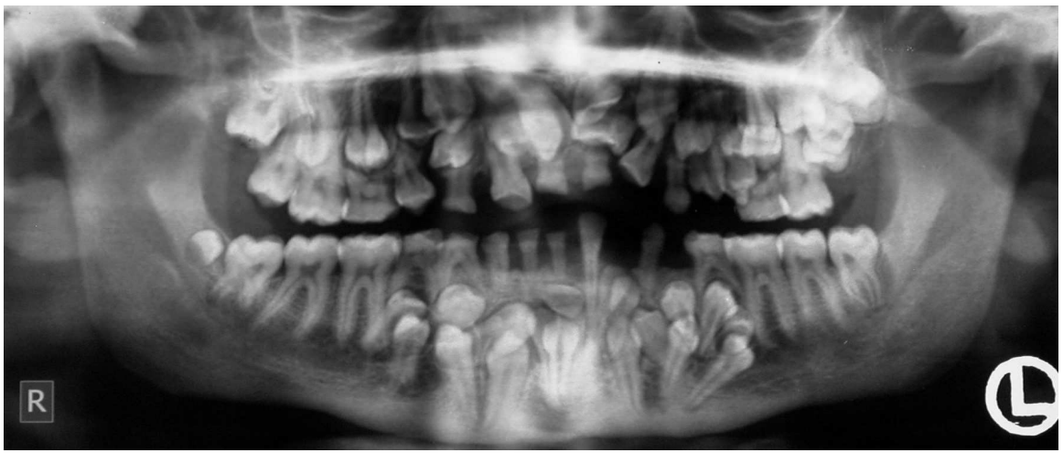

Fig 5: OPG

Discussion

Multiple impacted teeth by itself is a rare condition and often found in association with syndromes such as cleidocranial dysplasia,[2,4] Gardner's syndrome,[2,5,7] Down syndrome,[2,7] Aarskog syndrome,[2,8] Zimmerman-Laband syndrome[2,9,10] and Noonan's syndrome.[2,7] The oral soft tissue of our case was unremarkable and a histopathological evaluation of gingivae was normal.

Delayed or arrested eruption is probably caused by diminished resorption of bone, primary teeth and due to presence of multiple supernumerary teeth.[3] Conditions which cause lack of eruptive force may also lead to the same which could be either general, endocrinal, neurogenic or mucosal or bone disorder. Conditions where we find retained teeth are: hemifacial atrophy, hypopitutarism, hypothyroidism, cherubism, gingival fibromatosis, cleft palate and preceding syndromes.[5,7] On account of the fact that the medical history of our cases was non contributory; above conditions were excluded. Babu et al[3] stated that the exact cause and the significance of multiple impacted supernumerary teeth remaind an enigma. However, in our patient 46 unerupted supernumerary teeth were noted, 24 of them were in the maxillary and 20 were in the mandible. Even though few features were suggestive of cleidocranial dysplasia, exact diagnosis for this patient could not be made due to absence of pathognomic feature as aplasia or hypoplasia of clavicle. To achieve optimum function and aesthetics, an interdisciplinary cooperation between the oral surgeon, orthodontist, prosthodontist and pedodontist is required.[6] The treatment for such cases includes extraction of primary teeth, removal of supernumerary teeth, surgical exposure of impacted teeth followed by orthodontic therapy guiding them into occlusion.[3]

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Corresponding Author

Dr. Anirudh Agarwal

F-25, IVTh Avenue, Lal Bhadur Nagar (West),
J.L.N. Marg,
Jaipur-302 018. India
Ph; 09414065588
E-mail :-docanirudh@yahoo.com