



Esthetic Rehabilitation in a 13 Year Old Male Patient with Mesiodens: A Case Report

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ABSTRACT

Supernumerary teeth are one that is additional to the normal series and can be found in any region of dental arch. They duplicate the typical anatomy of posterior and anterior teeth, whereas rudimentary supernumerary teeth are dysmorphic and can presume conical forms, tuberculate form, molariform or odontome. They may be single or multiple, unilateral or bilateral, erupted or unerupted, and one or both jaw. The aim of this report is to present a case of a 13 year old boy with a mesiodens associated with maxillary anterior proclination.

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Introduction

Supernumerary teeth are tooth or tooth like structures in excess of the usual configuration of the normal number of deciduous or permanent teeth¹. Mesiodens is the most frequently occurring supernumerary tooth located palatal to the central incisors and conical morphology was found to be most common². Although a lot of theories have been proposed to explain the development of supernumerary teeth, yet the exact aetiology remains obscure. The most accepted theory is the hyperactivity theory which proposes that supernumerary teeth are formed as a result of localized and independent hyperactivity of dental lamina³. Occlusal and periapical radiographs aid in localizing the supernumerary teeth in the incisor region, where they appear most commonly as suggested by Rajab et al and Mahboob et al.⁴ Use of recent diagnostic aids such as cone- beam computed tomography (CBCT) with 3D imaging provides clear and three dimensional images and assist in exact location and successful management of supernumerary tooth as reported by Das et al.⁵ Measurement on CBCT images should be considered as important by clinicians during the treatment planning to decrease the risk of complications⁶.

Case report:

A 13 year old male patient reported to the Department of Pedodontics and Preventive Dentistry, Chandra Dental College and Hospital Safedabad Barabanki referred from Department of oral Medicine and Radiology with chief complaint of extra tooth and forwardly placed tooth in upper front tooth region since one year. History of present illness revealed that there was an extra tooth present i.r.t. upper right central incisor and upper left central incisor (11, 21) tooth regions. Past dental history was non-contributory. Past medical history was non-contributory. Family history, social history and habit history were non-contributory. Patient was well oriented to time, place and person. There was history of trauma five months back.

On extra-oral examination face was bilateral symmetrical. On intra-oral examination there was mild stain and calculus. Gingival and periodontal status was poor. There was generalized gingivitis. There was bilateral class II molar relation. There was a supernumerary tooth (mesiodens) present i.r.t. 11, 21. There was Ellis class II fracture i.r.t. upper right central incisor (11) and class I Ellis fracture i.r.t. upper left central incisor (21). There was maxillary anterior proclination with increased over jet.

Routine radiographic investigations were carried out to evaluate the status of all the teeth. Occlusal radiograph revealed presence of mesiodens (supernumerary tooth) between the right maxillary central incisor (11) and left maxillary central incisor (21). Mandibular right and left canine were mesially rotated. A multidisciplinary approach was adopted for the treatment of the patient. Extraction of mesiodens was done under local anaesthesia. Patient was recalled after 15 days for follow up. Fix orthodontic treatment was planned. Molar bands and brackets were placed. First of all levelling and alignment were done. Then retraction of maxillary anterior teeth was carried out with help of E-chain. Direct composite restoration was done i.r.t. 11 and 21. Patient was maintained on follow ups and showed a satisfactory outcome.



FIG 1. MESIODENS I.R.T. 11, 21.



FIG 2. MESIALLY ROTATED 33, 43.



FIG 3. OCCLUSAL RADIOGRAPH SHOWING MESIODENS.



FIG 4. AFTER 15 DAYS OF EXTRACTION OF MESIODENS.



FIG 5. MOLAR BANDS.



FIG 6. AFTER 6 MONTHS OF TREATMENT.

Conclusion:

Mesiodens with maxillary anterior proclination is a tough task for the treatment. Whenever supernumerary teeth are diagnosed, single or multiple, a decision regarding the appropriate management should be made carefully. Therefore, it is important to initiate appropriate consultation and each case should be individually assessed.

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