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The Tooth Betwixt: An Aesthetic Impediment – A Case of Mesiodens

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ABSTRACT

The word ‘supernumerary’ means something which is present in excess of the normal or requisite number. Mesiodens are supernumerary teeth with a common prevalence in the maxillary midline. Given their high frequency, dentists should be aware of the signs and symptoms of mesiodens and the appropriate treatment indicated. The following case highlights the presence of a mesiodens in a 36-year-old male.

Keywords: Incisor, Tooth Abnormalities, Supernumerary Tooth

1. INTRODUCTION

Tooth development is a continuous process. It has a number of physiologic growth processes and various morphologic stages. They interplay constantly to achieve the tooth’s final form and structure [1]. Any form of interference in the initiation stage, may result in missing teeth: single or multiple. It can also result in supernumerary teeth [2]. A supernumerary tooth is a tooth found supplementary to the normal series of dentition. It does not have any specific location predilection and can be found in almost any region of the dental arch. The term ‘Mesiodens’ specifically denotes a supernumerary tooth located between the

central incisors; predominately maxillary [3]. It is usually asymptomatic, though in some cases may have some associated symptoms.

Hereby, we present a case of a mesiodens in a middle aged man, who was least aware of the existing anomaly.

2. CASE REPORT

A 36-year-old medically fit male patient had visited our private clinic with complain of severe stains on his teeth. His medical, dental histories were non-contributory. He gave a positive history for tobacco chewing since over 15 years. He claimed to have reduced the frequency of tobacco intake since past one year. Intra-oral examination revealed a generalized severe deposition of extrinsic as well as intrinsic stains on all the teeth. As an incidental finding, a rudimentary conical tooth like structure was seen between the two maxillary central incisors. It was asymptomatic and exhibited no tenderness or mobility. A provisional diagnosis of chronic generalized gingivitis, dental fluorosis and maxillary mesiodens were enlisted. The patient was given habit counselling and advised to undergo oral prophylaxis and bleaching of his teeth. Mesiodens was left unattended as patient did not feel it was affecting his aesthetics.

3. DISCUSSION

The supernumerary tooth, an anomaly of dental eruption, is not a rare finding in clinical practice [4]. The prevalence varies from 0.3 to 3.8%. When located along the midline in the maxilla or mandible, between the two maxillary central incisors, it is termed as mesiodens [5]. Among the supernumerary teeth, the "mesiodens" is most frequent and can be the cause of many complications [4]. Mesiodens can be classified on the basis of their occurrence: Permanent dentition (Rudimentary mesiodens) or primary dentition (Supplementary mesiodens). Another classification is according to its morphology: Conical, trabeculated or molariform [6]. Our present case is the conical variant.

They can also be classified based on position: Occurring in the incisor region, paramolar: occurring besides a molar, and distomolar: occurring distal to the last molar [7]. There are two types of treatment for this anomaly: Clinical and radiological follow up, when the supernumerary tooth will not affect other structures. The other option is surgical removal, in which the supernumerary tooth is affecting neighbouring structures or teeth, orthodontic indication or bulging cortical bone that incites discomfort to the patient [5]. There are two schools of thoughts for the removal of mesiodens or any such supernumerary teeth. First – ‘The delayed approach’. At the stage of apical maturation of the central and lateral incisors, intervention is recommended, which is around eight to ten years of age. Second – ‘The immediate approach’. It calls for removal of the such a tooth at the initial diagnosis of their presence [1].

The aetiology of supernumerary teeth is not completely understood. Although an array of theories has been put forth, ‘the dichotomy of the tooth bud’, still stands as the most commonly accepted explanation [8]. Another theory suggests, supernumeraries result because of local independent condition, such as hyperactivity of the dental lamina [8, 9]. On the other

hand, genetic factors cannot be ruled out and have shown to play an important role in the origin of pathology [8]. Certainly, more research is substantial in gaining a thorough knowledge, so the need to evaluate each case on an individual basis is elementary (Fig. 1).

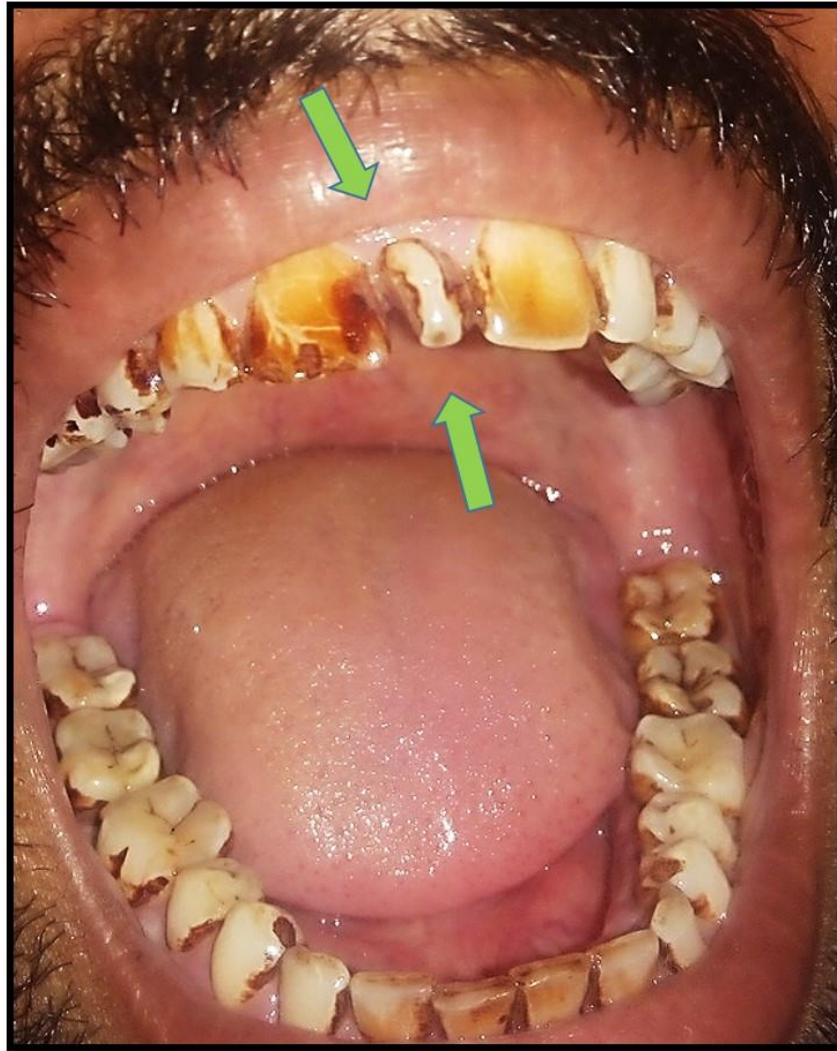


Figure 1. Mesiodens between Maxillary Central Incisors.

4. CONCLUSION

Early diagnosis of numeric dental anomalies can be done based on clinical and radiological examinations. Radiographic analysis such as orthopantomogram or higher imaging modalities can be useful to aid in early diagnosis and treatment planning. Dynamic eruptive alterations, influenced by numeric dental anomalies, can be treated by multidisciplinary planning and early diagnosis. Interceptive orthodontic treatment can also be considered to avoid invasive and traumatic surgical operations.

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