



BILATERAL TUBERCULATE SUPERNUMERARY TEETH - A RARE CASE REPORT

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ABSTRACT

Supernumerary teeth are teeth in excess of the normal series occurring in any region of the dental arch. They are located mostly in the anterior maxillary region and are classified according to their location and morphology. The tuberculate type of supernumerary tooth possesses more than one cusp or tubercle (barrel shaped). It is rare to find bilateral tuberculate supernumerary teeth in the premaxillary region and when found they rarely erupt. This report describes a 14-year-old girl with erupted palatally placed bilateral tuberculate supernumerary teeth. The presence of these supernumerary teeth led to the labial displacement and rotations of the anterior maxillary teeth. The treatment involved extraction of the supernumerary teeth and a referral for orthodontic management of the crowding, displacement and rotations. The

occurrence of erupted palatally placed tuberculate anterior teeth in this case is a rare experience.

Introduction

Supernumerary teeth (ST) are teeth in excess of the normal series occurring in any region of the dental arch with predilection for the premaxilla.^{1,2,3,4} The hyperdontia may be single or multiple, unilateral or bilateral, erupted or unerupted and in one or both jaws. Multiple supernumerary teeth are rare in individuals with no other associated diseases or syndromes.⁵ In some populations studied they were reported to occur more in males than females.^{6,7,8} They may occur in both dentitions, but they are more frequently seen in the permanent dentition.⁶ There are four morphological different types of supernumerary teeth in permanent dentition; conical, tuberculate, supplemental and odontome.^{3,8} The conical which is a small peg-shaped tooth is the most common supernumerary found in the permanent dentition and it usually presents between the maxillary central incisors as a mesiodens.^{4,9,10} Tuberculate ST are larger in size than the conical, barrel shaped with several tubercles or cusps and have incomplete or abnormal root formation compared to permanent incisors. They are often paired and rarely erupt into the oral cavity causing delayed eruption of permanent incisors.^{1,11} Single supernumerary tooth has been reported to be the most common.^{4,12}

Though they may remain in the same position for years without pathologic manifestation, several complications may arise. These include failure of a tooth to erupt, delayed eruption of permanent teeth, ectopic eruption, diastema, rotation of adjacent teeth, displacement of teeth and crowding. Others include periodontitis, dilacerations, dentigerous cyst formation, root resorption of adjacent teeth, occlusive disturbance and unaesthetic appearance.^{9,13} Therefore early diagnosis, proper evaluation and appropriate treatment are essential. Although the standard treatment for a supernumerary tooth/ teeth is extraction of the tooth/teeth, Garvey *et al.* recommended monitoring of supernumerary teeth (ST) in the following situations; satisfactory eruption of the succeeding teeth, absence of any associated pathologic lesions and risk of damage to the vitality of the related teeth.⁸

Bilateral supplemental maxillary lateral incisors,¹⁴ bilateral supplemental central incisors^{15,16} and unerupted bilateral tuberculate ST related to maxillary central incisors¹⁷ have previously been described in the literature. Bilateral tuberculate supernumerary teeth are a rare occurrence and when they occur in the anterior premaxillary region often do not erupt.^{1,11,17} Presented here is a case of a 14-year-old girl with non-syndromic bilateral tuberculate ST located at the premaxillary region causing labial displacement of the erupted maxillary central incisors.

Case Report

A 14-year-old girl presented to the Paediatric Dental Clinic, Nagpur with chief complaints of unaesthetic extra maxillary anterior teeth of about seven years duration. There was no history of traumatic injury. Medical and family histories were non-contributory. Clinical oral examination showed grossly healthy oral mucosa with mild generalized gingivae and the full complement dentition for her age, carious 36,46, not restored & grade 2 mobility with 61. The maxillary incisors were slightly rotated i.e. mesiopalatal rotations of 11 and 12 and impacted 21(fig.1). There were two tuberculate supernumerary teeth in the anterior maxillary arch palatal to 11 and 21(fig.3). There was labial displacement of 12, 11, and 22, lower anterior crowding. Radiographic examination showed incomplete root formation of the tuberculate supernumerary teeth (fig.2)

Discussion

Supernumerary teeth are the teeth in excess of the normal dental series, independent of their location and form. They have been reported in various populations to be single or multiple. Rajab and Hamdam's⁴ and Gomes¹² review on supernumerary teeth showed the majority of the subjects having only one supernumerary element.⁴ Regarding location, there was a strong predilection for the maxillary arch, for the anterior region of the arch, more specifically, for the midline.⁴ This was also reiterated in the report by Liu where the supernumerary teeth were majorly in the premaxillary region.⁷ Tuberculate ST are barrel shaped with several tubercles or cusps and have incomplete or abnormal root formation(fig.4). They rarely erupt; rather they delay the eruption of permanent incisors.^{3,5,11} Tuberculate mesiodens develop later than conical mesiodens and usually occupy a

more palatal position.^{5,11} This case is unusual as it demonstrates erupted bilateral tuberculate type of supernumerary teeth in the palatal region of the anterior maxilla in an asyndromic patient. This clinical presentation is contrary to most reports on tuberculate ST^{11,16} where they are rarely related to maxillary central incisors and seldom erupted. Also, tuberculate ST related to the maxillary central incisors when found are mostly in association with syndromes which was not so in this case. Yusuf's observation in a review of multiple supernumerary teeth occurring in the absence of a syndrome occurred in the premolar region of the mandible and reported the anterior maxilla was an unusual site for this occurrence.¹⁸ It has been reported that the tuberculate variety causes delayed eruption of the adjacent permanent teeth^{1,3,11,17,19} whereas the conical type caused a displacement. In this case there was no delay in eruption of 11 and 12, but a displacement. It may be that the presence of the tuberculate ST rather than obstructing deflected the path of eruption 11 and 12 resulting in the labial displacement. Traditionally ST are known to affect adjacent teeth by delaying/or and preventing eruption, crowding, resorbing the roots. In clinical practice, dental procedures such as implant site preparation, orthodontics tooth movements; alveolar bone grafting may be affected when supernumerary teeth are present (fig.5). Most of the time, ST are asymptomatic and may be within the jaws and are diagnosed by chance when radiographs are taken. Therefore, routine radiographs are advisable to diagnose them early and prevent the complications enumerated above. The occurrence of erupted palatally placed tuberculate anterior teeth in this case is a rare experience. However, the associated orthodontic problems are within familiar spectrum.

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