



Buccally Placed Tuberculate Shaped Paramolar: A Rare Supernumerary Tooth

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Abstract

Supernumerary Teeth (ST) appear in addition to the regular number of teeth. Paramolar is one of such rarely occurring ST. Tuberculate ST is a multicusped, short, barrel-shaped tooth with a normal crown appearing and invaginated but rudimentary root. This article presents a case report of an unusual occurrence of a buccally placed tuberculate shaped paramolar in the maxilla in otherwise a healthy individual.

Keywords: Dental Lamina; Paramolar; Supernumerary Tooth

Introduction

A supernumerary tooth (ST) is additional to the normal series and can be found in almost any region of the dental arch [1]. ST may occur unilaterally or bilaterally, in one or both jaws and the deciduous or permanent dentition. It can be either erupted or impacted, showing predilection for permanent dentition (0.1% to 3.8%) compared to deciduous dentition (0.3% to 0.6%) [2]. ST can be categorised based on morphology (conical, tuberculate, supplemental, and odontoma), location (mesiodens, paramolar, distomolar, parapremolar), orientation (vertical, inverted, transverse), and position (buccal, palatal, and transverse) [3]. Conical ST is a small, peg-shaped (coniform) tooth with a normal root, whereas tuberculate (multicusped) ST is a short, barrel-shaped tooth with a normal crown appearing and invaginated but rudimentary root. Supplemental ST resembled one of the normal series of the tooth (duplication) and was found at the end of a tooth series [4]. Odontomes, tumours of odontogenic origin, can be either complex composite (diffuse, disorganised mass of dental tissue) or compound composite (anatomically comparable to a normal tooth).

Mesiodens is a conical ST located between the maxillary central incisors. Paramolar is a small, rudimentary ST situated either buccally or palatally to maxillary molars, commonly buccal to the interproximal space between the second and third molar. Distomolar, a fourth permanent molar, is usually placed distally or distolingually to the upper third molar. Para-premolar most commonly occurs buccally in the interproximal space between upper premolars. This article presents a case report of an unusual occurrence of a buccally placed tuberculate shaped paramolar in the maxilla in otherwise a healthy individual.

Case Report

A 42-year-old man was referred to the Department of Conservative Dentistry and Endodontics with a chief complaint of cheek bite in his upper right back region of the mouth. The patient's medical and familial history was non-contributory, and there was no sign of any systemic diseases or syndromes. Intra-oral examination revealed Angles Class I occlusion without any malaligned teeth. However, an extra tooth was present buccally between the maxillary left

second and third molars (Figure 1). This supernumerary tooth was diagnosed as a paramolar. The crown of this paramolar had two cusps. The Buccal surface of the tooth was facing toward the buccal mucosa, and the palatal surface was touching the interproximal space between the second and third molar. Intra-oral periapical (IOPA) radiographs revealed the presence of an additional tooth between both the molars (Figure 2(a)). The patient was informed about the prevailing ailment, and extraction of the paramolar was advised. The patient was referred to the Department of Oral and Maxillofacial Surgery for extraction of paramolar. The extracted tooth was cleaned, disinfected, and analysed. The mesiodistal and buccopalatal width of the crown was 4.5 and 4.5 mm, respectively. The crown and root lengths were 4 mm and 8 mm, respectively. The morphometric measurements displayed that the paramolar dimensions were concise (Figure 3).



Figure 1: Clinical picture of buccally placed paramolar; buccal view (a) and occlusal view (b).



Figure 2: (a) Intraoral Periapical Radiograph showing distinct radiopacity between second and third molar. (b) Post-operative radiographs without any radiopacity.



Figure 3: Post-extraction clinical picture paramolar; buccal view (a), palatal view (b), distal view (c), mesial view (d) and occlusal view (e).

Discussion

The occurrence of paramolar is relatively uncommon; hence its exact aetiology is still not completely understood. Various theories have been proposed for their occurrence, such as the ‘Atavism theory’, the ‘dichotomy theory’, a hyperactive dental lamina, and a combination of genetic and environmental factors unified etiologic explanation [5-7].

According to Atavism theory, the occurrence of supernumerary teeth is due to the phylogenetic reversion to the extinct ancestral human dentition [8]. Dichotomy theory suggests that a developing tooth bud can divide into two teeth, giving rise to ST and a normal tooth [9]. Dental lamina hyperactivity theory suggests the localised and independent hyperactivity of the dental lamina to be the cause of the development of ST [10]. Niswander and Sujaku also proposed the presence of an autosomal recessive gene which explains the familial tendency to ST [11].

There are numerous case reports presenting paramolar, either unilateral or bilateral [12-15]. Our case becomes unique as the tooth size was very small. It was a tuberculated supernumerary tooth. The clinical management of patients with paramolar usually depends upon the site of the paramolar and its effect on adjacent structures. Treatment options for paramolar, as with any other supernumerary teeth, may include either observation (no treatment other than surveying the patient clinically and radiographically) or

extraction. This is true if the paramolar is asymptomatic and is not causing any problem. If any of the aforementioned complications are apparent, it is advisable to extract the paramolar. In our case, extraction of the carious paramolar was carried out as the patient had a severe cheek bite.

Conclusion

It is the clinicians' responsibility to take the decision on the management of Paramolar, whether to extract or retain it, depending upon the clinical outcome.

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