

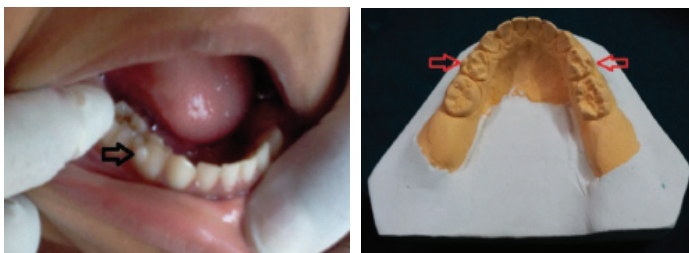
Bilateral Paramolar Tubercles on the Distobuccal Surfaces of Mandibular Primary First Molars: A Rare Occurrence

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A 6-year old boy was seen at the Paediatric clinic in Bangalore, with the chief complaint of pain in the lower left primary second molar. His medical, surgical, and personal history was non-contributory. Extraoral examination revealed left submandibular lymphadenopathy. Oral examination revealed a large carious lesion in relation to the left mandibular second primary molar. No soft tissue abnormalities were found. On careful clinical examination, extra additional cuspal projections were seen on the distobuccal surfaces of the right and left mandibular primary first molars [Table/Fig-1]. The projections were 2x2mm in size with a globular shape and placed on the distobuccal surface of the mandibular primary first molars [Table/Fig-2].

The opposing teeth conformed well in occlusion with these cuspal projections. No evidence of caries was noted in the grooves of these cusps. Neither the siblings nor the parents had reported with such



[Table/Fig-1]: Intraoral view of the paramolar tubercle on distobuccal surface of the mandibular primary first molar **[Table/Fig-2]:** Mandibular cast showing the paramolar tubercles

abnormalities. The child was co-operative in the dental operator. Pulpectomy was performed on 75, followed by placement of Stainless steel crown. Topical Fluoride application was performed was followed up periodically.

Human teeth may show large variations in their morphological features and forms. Such changes may be found in the crown either in the form of anomalous cusps, or in an increased number of roots, these variations in the cusp number and number of roots are all termed as “Non metric dental traits” [1]. Three of the most commonly reported variations of accessory cusps are the Carrabelli cusps of the molars, Talon cusps of the incisors and Leong’s tubercle of the premolar seen commonly in permanent than primary dentition [2]. The term “paramolar tubercle” is used for any stylar anomalous cusp, supernumerary inclusion or eminence occurring on the buccal surfaces of both upper and lower premolars and

molars. In 1916 Late Prof. L. Bolk of the Anatomical Institute of the University of Amsterdam described in literature for the first time, a rare entity known as the Protostylid. Protostylid is a supernumerary or accessory cusp found on the mesiobuccal surface of molars. In 1945, Dahlberg introduced a specific paleontologic nomenclature referring to this structure as “parastyle” when present in the upper molars and as “protostylid” when present in the lower molars. Though the aetiology is unknown, various studies have shown it occurs due to over activity of the dental lamina. It is now believed that PAX and MSX genes are responsible for the abnormal shape of the teeth. Due to their low overall occurrence, there is limited information regarding the frequencies among different races [3].

Paramolar tubercles provide an insight into dental evolution and development. These superstructures are potent sites for plaque retention. Recurrence of dental caries, gingival inflammation and localized periodontitis are often observed due to poor oral hygiene maintenance in these areas. The tubercle and an additional root canal can pose a challenge in endodontic therapy. The relation of the tubercular pulp and the main pulp has to be determined and when present in continuity, both have to be debrided thoroughly [4]. Thus early recognition of these anatomic variants is important so that preventive or restorative therapies can be instituted.

Protostylids are the paramolar tubercles that are seen on the mesiobuccal surfaces of the teeth. They are very rarely seen bilaterally on the primary teeth. In the indexed case, we observed the bilateral occurrence of protostylids on distobuccal surfaces. This particular morphological trait is highly uncommon.

The occurrence of the protostylid like entities on the distobuccal surfaces of the lower primary first molars as in this case will add to the literature available on the morphological variants of the primary first molars.

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