Talons Cusp in Primary Incisors: A Rarity
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ABSTRACT
Talon cusp is an uncommon anomaly in the primary dentition. The present report describes a case of bilateral talon cusps on the maxillary primary central incisors in a 1-year, 4-month-old Indian boy. Both central incisors exhibited a sharp prominent accessory cusp on the palatal surface which extended from the cementoenamel junction to the incisal edge. There were no associated developmental syndromes.

Keywords: Talon cusp, Primary incisors, Cingulum.

INTRODUCTION
Talon cusp is a supernumerary structure projecting from the dentoenamel junction to a variable distance toward the incisal edge of an anterior incisor tooth. It was described by Mitchell in 1892.1 Due to its resemblance to an eagle’s talon it is named as talon cusp by Mellor and Ripa.2 It is composed of enamel, dentine and a varying amount of pulp tissue.3,4

The exact etiology is not known, but it is suggested to be a combination of genetic and environmental factors.5-7 It is thought to arise during the morphodifferentiation stage of tooth development, as a result of outfolding of the enamel organ or hyperproductivity of the dental lamina.5,8 It is also suggested that disturbances during morphodifferentiation, such as altered endocrine function might affect the shape and size of the tooth without impairing the function of ameloblasts and odontoblasts.9

CASE REPORT
Parents of 16-month-old boy reported to our department with the complaint of extra teeth in upper anterior region. Clinical examination revealed enamel projections on palatal aspect of both the maxillary primary central incisors, which extended from the cingulum up to the incisal edge of the tooth (Fig. 1). The tooth appeared T-shaped when viewed incisally. The talon cusp merged smoothly with the lingual surface of the tooth. The deep developmental groove, which is normally seen at this junction, was not present. The margins of the talon cusp were smooth and did not cause any discomfort to the child. Caries was not detected and no functional or esthetic problems were present (Fig. 2).

On the basis of its characteristic clinical appearance, a diagnosis of talon cusp was made. As the tooth did not pose any significant clinical problems, corrective treatment for the tooth was not instituted. Patient was advised for a periodic recall visit.

DISCUSSION
Talons cusp is more common in the permanent dentition (75%) than in the primary dentition, while 92% affect the maxillary teeth.5,10 The maxillary lateral incisor is the most frequently affected in the permanent dentition while the maxillary central incisor is the most affected in the primary dentition.10 Most times it occurs unilaterally but bilateral cases, including multiple talon cusps have also been reported.5,11-14

Hattab et al classified talon cusps as Type 1 talon, Type 2 semi talon and Type 3 trace talon.5 This classification was later modified by Stephen-Ying et al.15-17

Type 1, major talon: A morphologically well delineated additional cusp that prominently projects from the facial or palatal/lingual surface of an anterior tooth and extends at least half the distance from the cementoenamel junction to the incisal edge.

Type 2, minor talon: A morphologically well-defined additional cusp that projects from the facial or palatal/lingual surface of an anterior tooth and extends more than one-fourth, but less than half the distance from the cementoenamel junction to the incisal edge.

Type 3, trace talon: Enlarged or prominent cingula and their variations, which occupy less than one-fourth the distance from the cementoenamel junction to the incisal edge.15

Caries susceptibility, occlusal interferences, compromised esthetics are common problems associated
with talon cusps.\textsuperscript{5,11,15,18} Management will depend on individual presentation and complications. Small talon cusps are asymptomatic and need no treatment.\textsuperscript{13,19}

In cases of talon cusp in the primary dentition it is important to monitor regularly the occlusion during the eruption of a tooth with talon cusp as well as their opposing teeth in order to prevent potential crossbite.\textsuperscript{15,20} Occlusal interferences might necessitate selective occlusal grinding and there is an increased chance of pulp exposure for which an endodontic procedure, such as partial pulpotomy or root canal treatment may be needed.\textsuperscript{5,11,21}

It has also been associated with some systemic conditions such as Mohr syndrome (orofacial-digital II),\textsuperscript{22} Rubinstein-Taybi syndrome,\textsuperscript{23} incontinentia pigmenti achromians\textsuperscript{24} and Ellis-van Creveld syndrome.\textsuperscript{25}

The presence of a talon cusp is not always an indication for dental treatment unless it is associated with problems such as compromised esthetics, occlusal interference, tooth displacement, caries, periodontal problems or irritation of the soft tissues during speech or mastication. This case report will help dentist in diagnosing and in managing the clinical cases of talon cusp, and it is of utmost importance because the earlier the detection will reduce the future complications.

REFERENCES


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Fig. 2: intraoral photograph showing no caries