

Variants of Talon Cusp (Dens Evaginatus)

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Talon cusp is a well delineated additional cusp that is located on the surface of an anterior tooth and extends at least half the distance from the Cementoenamel Junction (CEJ) to the incisal edge. It was first described by Mitchell WH in 1982 [1,2]. This is a type of accessory cusp that projects from the lingual surface that resembles an eagle's talon and hence, the name [3].

It could be due to an excess layering during morphodifferentiation of tooth development [4]. The occurrence is seen 1 to 6% in population, mainly in permanent dentition [1].

Talon cusp can be presented as exaggerated cingula, cusp like hyperplasia, accessory cusps, supernumerary cusps, interstitial

cusps and palatal accessory cusps. It contains enamel, dentine and possible pulpal extension histologically and radiologically superimposed over the tooth on which it occurs. It is also seen in syndromes like Berardinelli-Seip, Mohr, Rubinstein-Taybi, Ellis-van Creveld, Sturge-Weber and incontinentia pigmenti achromians [5].

Based on the literature, occurrence of talon cusp has been uncommon and has many variants. Here we present and discuss the occurrence of five cases of talon cusp [Table/Fig-1].

DISCUSSION

Presence of talon cusp may cause difficulty in maintaining hygiene,

Age/Sex	Chief Complaint	Intraoral Examination	Radiographic Examination	Diagnosis	Treatment Given
10 years/male	Abnormally shaped upper front tooth	Maxillary right permanent lateral incisor had a projection on the labial surface [Table/Fig-2]	Not available	Facial talon cusp	The parents were assured that it is a rare occurrence and regular check up is needed.
13 years/male	Irritation to the tongue	No signs of injury or presence of ulcers on tongue. Patient had no tongue thrusting habit. Mandibular left permanent central incisor had a sharp, prominent talon cusp [Table/Fig-3]	IOPA radiograph showed radiopacity on the lingual surface of mandibular left permanent central incisor [Table/Fig-4]	Lingual talon cusp	The projection was grinded gradually with topical fluoride application in multiple appointments.
Eight years/male	Extra tooth in upper front tooth region	Mesiodens with a projection in the cingulum [Table/Fig-5]	OPG showed mesiodens in between the permanent central incisors [Table/Fig-6]	Talon cusp with mesiodens	Parents were explained that it is a rare occurrence and regular check-up is needed
Four years/male	Caries in upper tooth	Talon cusp in maxillary primary left lateral incisor [Table/Fig-7]	IOPA radiograph showed radiopacity on the lingual aspect of the crown [Table/Fig-8]	Talon cusp on primary teeth	Parents were explained that it is a rare occurrence and regular check-up is needed
12 years/female	Deciduous canine was mobile	Maxillary left deciduous canine was mobile. Further examination showed that the patient had bilateral talon cusps in maxillary permanent lateral incisors [Table/Fig-9]	IOPA radiograph showed typical presentation of talon cusp, radiopacity in the lingual portion of the lateral incisors [Table/Fig-10]	Bilateral talon cusp	Asked to come for regular check-up

[Table/Fig-1]: Details of five cases of talon cusp.



[Table/Fig-2]: Case 1: A 10-year-old male with facial talon cusp on maxillary right lateral incisor. [Table/Fig-3]: Case 2: A 13-year-old male patient with a complaint of irritation to the tongue due to the projection in mandibular left central incisor. [Table/Fig-4]: Case 2: IOPA showing a projection of tooth structure in the lingual surface of the lateral incisor. (Images left to right)



[Table/Fig-5]: Case 3: An eight-year-old male patient having talon cusp in mesiodens. [Table/Fig-6]: OPG showing the mesiodens in between the permanent central incisors. [Table/Fig-7]: Case 4: A four-year-old male child with talon cusp in maxillary left lateral incisor. [Table/Fig-8]: IOPA of talon cusp showing projection of enamel and dentine. (Images left to right)



[Table/Fig-9]: Case 5: A 12-year-old female with bilateral talon cusps on maxillary lateral incisors. **[Table/Fig-10]:** IOPA of both maxillary lateral incisors showing projection of tooth structure.

aesthetics, occlusal interferences, carious developmental grooves, irritation to the tongue during speech and mastication, nursing difficulty and accidental cusp fracture [6]. The possible treatment modalities for this are; periodic observation, application of topical fluoride, sealing the fissures, aesthetic restorations, pulpectomy or root canal treatment and crowns based on the tooth affected and extraction, as a last resort [7]. Early diagnosis and proper preventive treatment is important.

To conclude, talon cusp is a rare morphological developmental anomaly that can occur both in primary and permanent dentition. The knowledge of different types, variety of presentations and occurrences can help in easy and early identification so that proper preventive and therapeutic treatments can be undertaken. In this case report, we discussed five cases of talon cusp hoping that it will help clinicians in identification, if encountered.

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