

## Talon cusp of mandibular anterior tooth: A rare case

### Dear Editor:

The talon cusp, or dens evaginatus of mandibular anterior teeth, is a very rare dental developmental anomaly which is characterized by the presence of an accessory cusp like structure projecting from the cingulum area or cemento-enamel junction. This dental anomaly was first described by Mitchell" as a "process of hornlike shape, curving from the base downward to the cutting edge". Later it was named as talons cusp by Mellor and Ripa because of its resemblance to that of the shape of an eagle's talon [1].

According to the literature, the prevalence rate of talon cusp may vary from 0.04% to 10% [2-3]. Maxillary lateral incisor (67%) are most commonly affected followed by maxillary central incisor (24%) and maxillary canines (9%). Talon cusps in mandibular anterior teeth are very rare [4]. Development of talon cusp is multifactorial and may also be induced by trauma affecting the developing tooth germ. Talon cusp affects both the genders and is more commonly unilateral, but few cases were found to be bilateral. It is usually composed of normal enamel and dentin with varying degree of pulp tissue [1].

A 15 year old female reported to the Department of Oral Medicine and Radiology with a complaint of pain in the lower front region of the jaw since one month. Patient gave history of pain that was gradual in onset, continuous, throbbing in nature and non-radiating. Pain aggravated while biting and clenching the teeth. Pain was relieved on medication but the patient was not aware of details of medication taken. Patient's medical, dental and family history were non-contributory. Clinical examination revealed a dome shaped projection in the cervical part of lingual aspect of mandibular right lateral incisor. Supero-inferiorly it measured around 2.5mm and mesiodistally 2mm in its dimension approximately. It extended from the cement-enamel junction to less than half of the incisal edge standing apart from the crown,

non-carious with less prominent groove. Gingiva below the projection appeared to be edematous, erythematous with slight abrasion over it. Probing of the periodontium around the tooth disclosed pocket on distal aspect along with bleeding on probing. Clinical examination also revealed grade-II mobility and the tooth was tender to percussion. Tooth appeared to be vital as it had responded well to vitality test.

**Fig-1:** Intraoral views of talons cusp on mandibular right lateral incisor



Radiographic examination by intraoral periapical radiograph revealed a dome shaped radiopacity on the disto-lateral aspect of mandibular right lateral incisor showing enamel and dentin. On the distal aspect of mandibular right lateral incisor bone loss extended to beyond middle 1/3<sup>rd</sup> of the root whereas slight bone loss was also noted on its mesial aspect. In correlation with above mentioned findings a provisional diagnosis of talons cusp with localized periodontitis with

mandibular right lateral incisor was made. Treatment consisted of deep gingival scaling and curettage followed by splinting.

**Fig-2:** Intraoral periapical radiograph showing the oval shaped radiopaque structure i.e., Talons cusp



Dens evaginatus is a developmental anomaly most often seen as tubercle projecting from palatal surfaces of maxillary central and lateral incisor [1]. The occurrence of talons cusp in mandibular anterior teeth is extremely very rare [2]. Due to the variation in the size and shape of talon's cusp Hattab et al classified them as type-I: additional cusp that projects from the palatal surface of an anterior tooth and extends at least half the distance from the cemento-enamel junction to the incisal edge; type 2 (semitalon): an additional cusp of a millimeter or more but extending less than half the distance from the cemento-enamel junction to the incisal edge; and

type 3 (trace talon): enlarged and prominent cingulum and its variations [1]. Present case was of type-II associated with periodontal problems. Cases with lingual talon cusp in the mandibular arch were associated with recurrent ulcerations on the tongue but in our case no such scenario was noted as it was smooth and dome shaped [2].

In the present case report, periodontal problem was observed leading to grade-II mobility of the tooth at a very young age and also irritation to the soft tissue i.e gingival inflammation was also noted. This may be attributed to lack of maintenance of oral hygiene due to the presence of talon's cusp. Various complications are associated with talon's cusp which include compromised esthetics, fracture of the cusp, attrition, caries due to the presence of developmental grooves, periodontal problems, occlusal interferences, trauma or irritation to the soft tissues etc [2,5].

Management may differ according to the presence of associated pathologies and may be difficult due to varied anatomical factors [2]. Patient counseling and regular follow-up form a very important part of the treatment. So, early and timely diagnosis of this unique developmental anomaly is very important to prevent the onset of diverse complications.

## References

1. Segura-Egea JJ, Rubio AJ, Santos JR, Ortega VE. Dens evaginatus of anterior teeth (talon cusp): Report of five cases. *Restorative Dentistry* 2003; 34(4):272-277.
2. Dankner E, Harari D, Rotstein I. Dens evaginatus of anterior teeth. Literature review and radiographic survey of 15,000 teeth. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*, 1996; 81: 472-475.
3. Sharma G, Nagpal A. Talon Cusp: A Prevalence Study of Its Types in Permanent Dentition and Report of a Rare Case of Its Association with Fusion in Mandibular Incisor. *J of Oral Dis*. Vol 2014, Article ID: 595189, 6 pages, 2014. <https://doi.org/10.1155/2014/595189>
4. Tulongolu N, Cankala DU, Ozdemir RC. Talon's cusp: Report of four unusual cases. *Journal of Indian Society of Pedodontics and Preventive Dentistry* 2007; 25(10):52-55.
5. Ramalingam K, Gajula P. Mandibular talon cusp: A rare presentation with literature review. *J Nat Sci Biol Med*, 2011; 2(2):225-228.

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