

Talons Cusp in Mandibular Anteriors – An Unusual Presentation in A Child Patient

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Abstract:

Talon's cusp is a dental anomaly also known as an eagle's talon. It is an extra cusp on an anterior tooth which arises as a result of evagination on the surface of a crown before calcification has occurred. The exact etiology is unknown. The incidence is less than 6%. Commonly involved is maxillary lateral incisors, with some instances of bilateral involvement. The anomaly has been reported to be rare in the mandible. This article reports unusual case of talon's cusp, which affecting permanent mandibular central incisors.

Key Words: talon's cusp, eagle's talon, evagination, dental anomaly, mandibular incisors.

Introduction:

Talon cusp is an uncommon, developmental dental abnormality in which accessory cusps like structure arise as a result of evagination on the surface of a crown before calcification has occurred. The incidence has been found to range from less than 1% to 6% of the population, in which 55% occur on the permanent maxillary lateral incisor, and 33% occur on the permanent maxillary central incisor¹.

The frequencies of tooth affected in descending order are central incisors, premolars, canines, and molars. The majority of reports about talon cusp show that the permanent dentition has been involved three times more often than the primary dentition. The anomaly has been reported to be rare in the mandible².

Case Report:

An 14-year-old boy, reported to dental clinics with the complaints of malaligned lower anterior teeth. On clinical examination two talon cusps seen on the lingual surfaces of both mandibular central incisors and over-retained mandibular left primary central incisor were observed [Figure 1]. Because the extra tubercles have effect on the occlusal interference and can cause occlusal trauma the treatment plan called for a gradual reduction of the talon cusps on consecutive visits and an application of fluoride at each visit and referred the patient for orthodontic correction of malalignment. On radiographic examination Double-teeth in permanent dentition have been observed [Figure 2].



Fig.-1: Talon's cusp seen as an elevated tubercle in the lingual aspect of mandibular central incisors.

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Fig.-2: Intra oral periapical radiograph showing double teeth appearance in the mandibular central incisors region.

Discussion:

Talon's cusp affects both sexes but males have a higher incidence than females. Most of the cases are unilateral, but one fifth of the cases are bilateral. This abnormality probably are induced by trauma or other localized insults affecting the tooth germ [3].

It appears to be more prevalent in patients with Rubinstein-Taybi syndrome, Mohr syndrome (oral-facial-digital syndrome, type-II), Sturge-Weber syndrome (encephalotrigeminal angiomas) or incontinentia pigmenti achromians^{4,5}. But this case was not associated with any known abnormal systemic developmental syndromes.

Clinical problems noted with talon cusp cases include attrition, breast-feeding problems, compromised esthetics, occlusal interference, accidental cusp fracture, interference with tongue space, temporomandibular joint pain, displacement of the affected tooth, irritation of tongue during speech and mastication, periodontal problems because of excessive occlusal force, misinterpretation of radiographs of taloned teeth before eruption and caries susceptibility because of developmental grooves on the talon⁶.

Early diagnosis and definitive treatment is important for talon's cusp. Caries in the deep developmental

grooves on the lateral aspect of the cusp should be removed and the cavity filled with glass ionomer restorative material. Non carious grooves are cleaned with slurry of pumice, acid etched and sealed with fissure sealant. Talon's cusp with premature contact and occlusal interference, the cusp should be reduced gradually on consecutive visits over 6-8 week intervals to allow time for deposition of reparative dentin for pulpal protection. After each grinding procedure, the tooth surface should be covered with a desensitising agent. conservative techniques such as complete reduction of the cusp followed by calcium hydroxide pulpotomy for an immature tooth or root-canal therapy have also been carried out^{7,8}.

Conclusion:

Talon's cusp although rarely seen, needs to be diagnosed and kept under observation to prevent further complications. Our report highlights this unusual anomaly occurring in a rare site.

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