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Case Report

Facial talon in mandibular incisor: An unusual occurrence

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ABSTRACT

Talon cusp, also known as an eagle's talon, is a dental anomaly that occurs on the lingual aspect of teeth commonly, but occurrence on the facial aspect has rarely been reported. 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 incidence of talon cusp on lingual side is less than 6% and is even lesser on the facial aspect. Commonly involved teeth are maxillary incisors, usually unilateral but in some instances bilateral. The classical radiographical feature of talon cusp is double teeth appearance. The anomaly has been reported to be unusual in the mandibular dentition and extremely rare on the facial aspect. We report one such extremely rare case of facial talon cusp in mandibular central incisor.

Key Words: Accessory cusp, facial talon, talon cusp

INTRODUCTION

Mitchell was the first to recognize this anomaly in 1892,[1] which was later named as talon cusp by Ripa and Mellor due to its resemblance to an eagle's talon.[2] Talon cusp, also known as eagle's talon, is a manifestation of dens evaginatus in the anterior teeth.[3] The incidence has been found to range from less than 1% to 6% of the population, out of which 55% occurs on the permanent maxillary central incisor and 33% occurs on the permanent maxillary lateral incisor, predominantly on the lingual aspect.[4]

A recent study of 3-year duration revealed that maxillary incisors (33%) were the most commonly affected and mandibular incisors and canine (3%) were the least commonly affected.[5] Only very few cases of facial talon cusp have been reported so far.[6]

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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 unusual in the mandible.[7]

CASE REPORT

A 7-year-old boy reported to Department of Oral Medicine and Radiology, Dental Hospital, Mangalore, India, for a routine dental checkup. The patient's medical history was non-contributory. No abnormalities were noted on general examination. On intraoral examination, one talon cusp was present on the facial surface of the mandibular left central incisor [Figure 1]. On radiographic examination, double teeth in permanent mandibular left central incisor were observed [Figure 2]. Patient was advised contouring of the crown of the tooth with facial talon cusp and orthodontic treatment, but he was not willing for the same.

DISCUSSION

Facial talon cusp is extremely rare and only eight cases had been reported before this case.[6,8] This abnormality probably is induced by trauma or other localized insults affecting the tooth germ.[9] Talon cusp

Figure 1: Facial talon cusp seen as an elevated tubercle in the labial aspect of left mandibular central incisor

Figure 2: Intraoral periapical radiograph showing double teeth appearance in the left mandibular central incisor region

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. Studies have revealed that maxillary incisors are the most commonly affected and mandibular incisors are the least commonly affected.[5] Genetic factors have also been suggested by some authors.[3,10,11] Population-based phylogenic and genetic studies involving dental variations such as cusp of carabelli and talon cusp have been carried out recently in Hungary.[12]

Clinical problems observed with facial talon cusp cases include attrition, breast-feeding problems, compromised esthetics, occlusal interference, accidental cusp fracture, temporomandibular joint pain, displacement of the affected tooth, periodontal problems because of excessive occlusal force, misinterpretation of radiographs of taloned teeth before eruption and caries susceptibility because of developmental grooves on the talon.[13]

Early diagnosis and definitive treatment is important for talon 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. If talon cusp causes 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 desensitizing 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 used.[14,15]

CONCLUSION

Facial talon cusp, although unusually seen, needs to be diagnosed and kept under observation to prevent further complications. Our report highlights this unusual anomaly occurring in an unusual site.

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