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Facial Talon Cusp: A Case Report

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Introduction

Talon cusp, which resembles an eagle's talon, is a dental anomaly that projects lingually from the singulum areas of maxillary or mandibular permanent incisor¹. It is uncommon among the general population with a reported incidence of less than 1 to about 8 %^{2,3}. Talon cusp is most frequently seen on the permanent maxillary lateral incisor^{2,3} with male predilection. Its etiology is unknown. Radiographically, talon cusp appears radiopaque with radiodensity similar to the normal tooth structure. Histologically, talon cusp is composed of normal enamel and dentine with or without a horn of pulp tissue. Talon cusps may be asymptomatic and present as an incidental finding. It can also cause various functional, aesthetic and diagnostic problems.

A search through English literature from 1960 to 2003 in the Medline reveals only 4 cases of facial talon cusp^{4,5,6,7} including one with facial and palatal talon cusp on the same tooth⁷ and the other in a child with incontinentia pigmenti achromian⁵. This paper presented another rare case of facial talon cusp.

Material and Methods

Case report

A 50 years old Malay male presented to the Dental Centre of Kem Kementah, Kuala Lumpur with complaint of recurrent fracture of filling on the lower left first molar (36). His medical and dental histories were unremarkable. Examination revealed a fractured amalgam restoration on 36 and abrasion cavities on most of the premolars. The upper right lateral incisor (12) has an anomalous cusp that protrudes from the cementum-enamel junction (CEJ) of the labial surface (Figure 1 and 2). It extends more than half of the distance between CEJ and incisal edge and resembles an eagle's talon. The contralateral lateral incisor (22) appears peg shape. Other dentition appears normal. There was no history of trauma to the deciduous and permanent dentition and there are no other members in the family with similar dentition.



Figure 1: talon cusp on the labial surface of right upper lateral incisor



Figure 2: Occlusal view of the upper anterior dentition shows the presence of talon cusp on the labial surface of upper right lateral incisor

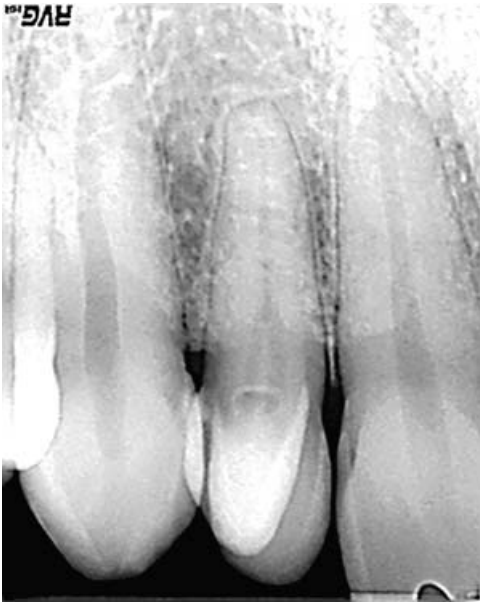


Figure 3: Periapical radiograph shows a V-shaped radiopacity extends from the CEJ to the incisal edge of upper right lateral incisor

The tooth responded positively to vitality test. Periapical radiograph reveals a V-shaped radioopaque structure arising from the CEJ (Figure 3).

A diagnosis of talon cusp was made based on its characteristic clinical and radiographic features. No treatment was instituted because the talon cusp does not pose any clinical problems. However, the patient was enrolled for routine dental treatment.

Conclusions

Mitchell⁸ first defined talon cusp in 1892 as a tubercle that projects lingually and incisally from the cingulum area of anterior teeth. Talon cusp can be found in isolation or in association with other dental anomalies such as peg shape lateral incisors, supernumeraries, complex odontomes and unerupted canine⁹. Syndromes that have been reported in association with talon cusp include Mohr syndrome, incontinentia pigmenti achromians and Rubinstein-Taybi syndrome⁶.

Talon cusp is indicated for treatment when it is associated with occlusal interference, compromised aesthetics, caries control due to the presence of a deep developmental groove between the accessory cusp and the tooth, interference with breast-feeding, irritation of tongue during speech and mastication and periodontal problems because of excessive force⁹. Treatments include no treatment if it does not cause any of the mentioned problems, periodic reduction of the talon cusp or recontouring, application of fissure sealant at the developmental groove to prevent caries and endodontic treatment when there is pulp exposure.

The author, as Jowharji et al⁴, like to suggest that the definition of talon cusp should include facial or labial projection on the anterior teeth that extend not less than half the distance between the CEJ and the incisal edge in order to differentiate a tubercle or elevated cingulum from talon cusp. In addition, the diagnostic criteria should be strictly adhered to when a diagnosis of talon cusp is to be made so that the comparison of incidence or prevalence studies could be made. The patient reported in this case is happy with the tooth. No periapical radiolucency was seen in the radiograph taken. Hence, it was decided to leave the talon cusp with yearly review.

Literature

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Poster Faksimile:

FACIAL TALON CUSP : A CASE REPORT

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ABSTRACT

Talon cusp is a dental anomaly that usually projects lingually / palatally from the singulum areas of maxillary or mandibular permanent incisor. Only 4 cases of facial talon cusp, including one with facial and palatal talon cusp on the same tooth and the other in a child with incontinentia pigmenti achromian, have been reported in the English literature since 1960. This case report presents a rare labial talon cusp on upper right lateral incisor in a 50 years old Malay male without associated clinical problems that a talon cusp might cause.

INTRODUCTION

- Talon cusp, which resembles an eagle's talon, is a dental anomaly that projects lingually from the singulum areas of maxillary or mandibular permanent incisor¹. It is uncommon among the general population with a reported incidence of less than 1 to about 8 %^{2,3}. Talon cusp is most frequently seen on the permanent maxillary lateral incisor³ with male predilection. Its etiology is unknown.
- Radiographically, talon cusp appears radiopaque with radiodensity similar to the normal tooth structure. Histologically, talon cusp is composed of normal enamel and dentine with or without a horn of pulp tissue.
- Talon cusps may be asymptomatic and present as an incidental finding. It can also cause various functional, aesthetic and diagnostic problems.
- A search through English literature from 1960 to 2003 in the Medline reveals only 4 cases of facial talon cusp^{4,5,6,7} including one with facial and palatal talon cusp on the same tooth⁴ and the other in a child with incontinentia pigmenti achromian⁵. This paper presented another rare case of facial talon cusp.

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- A 50 years old Malay male presented to the Dental Centre of Kem Kementah, Kuala Lumpur with complaint of recurrent fracture of filling on the lower left first molar (36). His medical and dental histories were unremarkable. Examination revealed a fractured amalgam restoration on 36 and abrasion cavities on most of the premolars. The upper right lateral incisor (12) has an anomalous cusp that protrudes from the cemento-enamel junction (CEJ) of the labial surface (Figure 1 and 2). It extends more than half of the distance between CEJ and incisal edge and resembles an eagle's talon. The contralateral lateral incisor (22) appears peg shape. Other dentition appears normal. There was no history of trauma to the deciduous and permanent dentition and there are no other members in the family with similar dentition.
- The tooth responded positively to vitality test. Periapical radiograph reveals a v-shaped radiopaque structure arising from the CEJ (Figure 3).
- A diagnosis of talon cusp was made based on its characteristic clinical and radiographic features. No treatment was instituted because the talon cusp does not pose any clinical problems. However, the patient was enrolled for routine dental treatment.

DISCUSSION

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- The patient reported in this case is happy with the tooth. No periapical radiolucency was seen in the radiograph taken. Hence, it was decided to retain the talon cusp with yearly review.

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