

# Supplemental Mesiodens with Facial Talons Cusp- An Unusual Case Report

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## ABSTRACT

Supernumerary tooth is one that is additional to the normal series and can be found in almost any region of the dental arch. Mesiodens is the most common type of supernumerary tooth found in the premaxilla between two central incisors. Talon cusp is a supernumerary structure projecting from the dento-enamel junction to a variable distance towards the incisal edge of an anterior tooth and mostly on the palatal aspect. Only few have been reported on the facial aspect of the teeth. Here we present a case of a ten year old male child with supplemental mesiodens associated with facial talons cusp.

**Keywords:** Supernumerary; Mesiodens, Talon cusp, Facial, Supplemental

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## INTRODUCTION

A mesiodens is an accessory supernumerary tooth present in the midline of the maxilla between the two incisors(1). Mesiodens are classified into supplemental and rudimentary based on their shapes. Supplemental refers to supernumerary teeth of normal shape and size, which may also be termed as incisiform(2). They might increase the crowding potential and may cause an esthetic problem. Difficulty may be encountered in distinguishing the normal tooth from its supplemental 'twin'(3).

Talon cusp is usually defined as an accessory cusp like structure resembling an eagle's talon in shape. It projects incisally from the cingulum area of the incisors and consists of enamel, dentin and pulpal tissue(4). The permanent dentition is affected more frequently than the primary dentition and the anomaly is more common in males than in females(5).

Reports of lingual location of talon cusp are many but very few cases have been reported with facial talon cusp(6). Only one case of talons cusp on a supplemental mesiodens has been reported(7). Here we present a case of a supplemental mesiodens

with facial talon cusp in a ten year old male child.

## CASE REPORT

A ten year old male reported to the Department of Pedodontics and Preventive dentistry at M.R. Ambedkar Dental College and Hospital, Bangalore with a complaint of irregular upper front teeth. His medical history was noncontributory. Intra oral examination revealed a supplemental mesiodens with well-defined accessory cusp on the labial surface. The accessory cusp was pyramidal in shape and extended from the gingival margin to the incisal edge. It was located in the medial half of the crown and completely attached to it (Figure 1 and 2). It had a rounded tip.

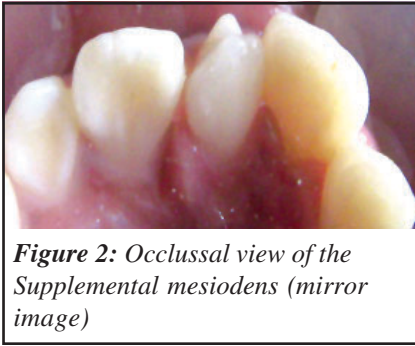


**Figure 1:** Frontal view of Supplemental mesiodens with talon cusp

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**Figure 2:** Occlusal view of the Supplemental mesiodens (mirror image)

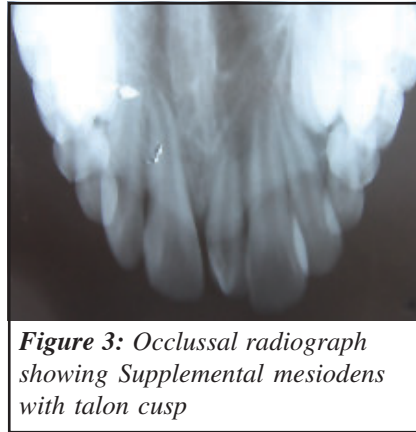
The supplemental mesiodens was present in the place of permanent right maxillary central incisor. The permanent maxillary incisors were normal in shape and size. The permanent laterals had a pointed tip resembling a canine. No carious lesions, deep periodontal pockets, spontaneous or percussion pain were associated with the affected tooth. The parents had no knowledge of similar anomalies in either of the dentitions of any other family members. Intra-oral and extra-oral examinations of the patient did not reveal any abnormalities of soft and hard tissues.

Occlusal radiographs (Figure 3) confirmed the presence of supplemental mesiodens between the permanent central incisors with a typical V-shaped radio opaque structure superimposed over the image of the affected crown, with the point of 'V' towards the incisal edge.

Extraction of the supplemental mesiodens was done under local anesthesia. Patient is kept under observation for the self correction of diastema.

**DISCUSSION**

Mesiodens is the most common of supernumerary teeth located mesial to both centrals. Several theories have been proposed for the etiology of hyperdontia: theory of differentiation, theory of concrescence, post permanent theory, dichotomy theory and hyperactivity theory. However the hyperactivity theory, which states that supernumerary teeth are derived from independent local hyperactivity of the dental lamina, has been more accepted(8).



**Figure 3:** Occlusal radiograph showing Supplemental mesiodens with talon cusp

In children about 65% of supernumeraries interfere with the normal eruption of the maxillary permanent incisors(9). The presence of supernumeraries may be associated with various developmental disorders which was evident in our case by the presence of talons cusp.

The appearance of talon cusp on the labial surface of the tooth is attributed to the hyperplasia of labial central developmental lobe (4).Wide variations exist in shape, size, structure and location of talon cusp from a slight tubercle like projection to a well delineated prominent cusp extending at least half the distance from cemento-enamel junction to incisal edge (Trace-Talon, Semi-Talon to True Talon) occurring lingually or labially in primary or permanent dentition or on supernumerary teeth. Some talon cusps are quite sharp and spike like, while others have rounded and smooth tips, which may stand away from rest of the crown or may be in close approximation to the tooth surface. It could be horn like, conical or pyramidal in shape and extensions of pulp tissue may or may not be present(6).In our case it was pyramidal and had a rounded tip.

Management depends upon the type of mesiodens, its position, relation to other teeth and their effect on adjacent teeth. Treatment may vary from extraction of supernumerary teeth or extraction coupled with orthodontic correction to establish a

good aesthetic as well as occlusion(7). In the present case, it was decided to extract the supplemental mesiodens and keep the patient under observation. Periodic recall check ups are necessary in such cases as in 75% of cases, extraction of the mesiodens during mixed dentition resulted in spontaneous eruption and alignment of the adjacent teeth(10).

**CONCLUSION**

Supplemental mesiodens with a facial talon is a rare occurrence. Its finding requires thorough examination of the patient and early treatment approach to avoid possible complications to the developing dentition/occlusion of a child like crowding, delayed eruption, diastema, rotations, cystic lesions, resorption of adjacent teeth.

**REFERENCES**

1. DePasquale S, Azzopardi A, Camilleri S. Mesiodens preventing eruption of a permanent central incisor. *Malta Medical Journal* 2005;**17**(2):37-39.
2. Sharma A, Gupta S, Madan M. Uncommon mesiodens-a report of two cases. *J Indian Soc Pedod Prev Dent* 1999;**17**(2): 69-71.
3. Hattab FN, Yassin OM, Rawashdch MA. Supernumerary teeth: Report of three cases and review of literature. *ASDC J Dent Child* 1994;**38**:2-92.
4. Glavina D, Skrinjaric T. Labial Talon Cusp on Maxillary Central Incisors: A Rare Developmental Dental Anomaly. *Coll Antropol* 2005;**29**(1):227-31.
5. Neeraja R. Semi talon and Trace talon: report of two cases. *Eur J Paediatr Dent* 2009;**10**(3):151-52.
6. Patil R, Singh S, Subba Reddy VV. Labial Talon Cusp on Permanent Central Incisor: A Case Report. *J Indian Soc Pedod Prev Dent* 2004;**22**(1):30-32.
7. Leena V, Krishan G, Sidhi P, Archana A, Navjot S. Mesiodens with an Unusual Morphology - A Case Report. *J Oral Health Comm Dent* 2009;**3**(2):42-44.
8. Gallas MM, Garcia A. Retention of permanent incisors by mesiodens: a family affair. *BDJ* 2000;**188**(2):63-64.
9. Tatel FS. Reshaping a Mesiodens. *Pediatr Dent* 2003;**25**:585-86.
10. American Academy of Pediatric Dentistry. Guideline on Pediatric Oral Surgery. *Pediatr Dent* 2009;**31**(6):218-24.