

Rare Coexistence of Erupting Supernumerary Tooth, Talon Cusp, and Bifid Roots in a 10-Year-Old Child: A Case Report

¹Dr. Aniket Desai, Lecturer, Department of Pediatric Dentistry, Sinhgad Dental College and Hospital, Pune

²Dr. Prasad Jathar, Professor, Department of Pediatric Dentistry, Sinhgad Dental College and Hospital, Pune

³Dr. Raju Patil, Professor and HOD, Department of Pediatric Dentistry, Sinhgad Dental College and Hospital, Pune

⁴Dr. Tejas Sawant, PG Student, Department of Pediatric Dentistry, Sinhgad Dental College and Hospital, Pune

Corresponding Author: Dr. Tejas Sawant, PG Student, Department of Pediatric Dentistry, Sinhgad Dental College and Hospital, Pune

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Abstract

Background: Bifid roots in the mandibular anterior region are exceedingly rare, and their simultaneous occurrence with a talon cusp and erupting supernumerary tooth is virtually unreported.

Case Presentation: A 10-year-old boy presented with a protruding maxillary incisor. Clinical examination revealed a talon cusp on the maxillary left central incisor. Radiographic evaluation, including OPG, identified a palatally located supernumerary tooth and bifid roots in mandibular incisors.

Conclusion: This is a unique triad of dental anomalies. Meticulous clinical and radiographic assessment is essential for timely detection and coordinated treatment planning.

Keywords: Supernumerary Tooth, Talon Cusp, Bifid Roots, Dental Anomalies, Case Report.

Introduction

Supernumerary teeth (hyperdontia) occur in 0.1%–3.8% of permanent dentitions, most commonly in the maxillary anterior region (mesiodens)¹. Talon cusp is an uncommon additive cusp on anterior teeth, with a reported prevalence ranging from less than 1% to as high as 8%, varying across populations^{2,5,8}. Bifid roots in mandibular anterior teeth are extraordinarily rare; imaging, particularly CBCT, aids in their accurate identification^{3,4}. The coexistence of all three anomalies in a single patient has not been documented. This report aims to highlight their clinical and radiographic implications.

Case Report

A 10-year-old male reported to our department with a complaint of a protruding upper front tooth. Clinical Findings: A 10-year-old male patient visited the

dental OPD of Sinhgad Dental College and hospital Pune, complaining of a protruded maxillary incisor. On clinical examination, the presence of talons cusp with respect to the permanent upper left central incisor was seen. The radiographic and CBCT examination showed the presence of supernumerary teeth apically and palatally; with the obvious bulging near the palatal mucosa which could also be appreciated clinically.

On interpretation of the Orthopantomograph; the bifid roots with two canals were appreciated in the mandibular anterior region with respect to 21 and 12.

The patient was informed about the above anomalies and consent was taken to carry out the further treatment.

Figure 1:



Figure A:



Figure B:



Figure C:



Figure 2: OPG

Discussion

Supernumerary Teeth: Supernumerary teeth are defined as extra teeth beyond the normal dental formula and can occur in both primary and permanent dentition¹. The etiology is multifactorial, with theories suggesting hyperactivity of the dental lamina, genetic influences, and environmental triggers^{1,4}. In the present case, the supernumerary tooth was palatally positioned in the maxillary anterior region, consistent with the most common form, mesiodens. Such teeth can cause crowding, delayed eruption, midline diastema, and in some cases, cyst formation^{1,4}. Surgical intervention is usually recommended to prevent complications.

Talon Cusp: Talon cusp is a developmental anomaly characterized by an accessory cusp projecting from the cingulum area of anterior teeth^{2,5}. It consists of normal enamel and dentin, and may or may not contain pulpal tissue². Clinically, talon cusps can cause occlusal interference, esthetic concerns, and predispose to caries in developmental grooves. Management depends on the size and associated complications, ranging from periodic monitoring to gradual reduction with fluoride application to prevent sensitivity^{5,8}.

Bifid Roots: Bifid roots are rare in mandibular anterior teeth, with a higher prevalence in mandibular canines and molars³. The occurrence in mandibular central and lateral incisors, as seen in this case, is extremely uncommon. Bifid roots can complicate endodontic treatment due to the presence of two canals, making them prone to missed anatomy and treatment failure^{3,4}. CBCT is particularly

valuable in such cases for accurate diagnosis and treatment planning.

Combined Occurrence: The concurrent presentation of these three anomalies has not been reported in recent literature over the last two decades. While isolated or dual anomalies have been described ^{6,9}, the triad is unique. This case highlights the importance of comprehensive clinical and radiographic evaluation in pediatric patients, especially when one anomaly is detected, as the likelihood of associated anomalies may be higher. Early detection enables better interdisciplinary management involving pediatric dentists, orthodontists, and endodontists.

Conclusion

The described case showcases a remarkably rare combination of dental anomalies. Thorough examination and imaging are pivotal in diagnosing such complex presentations and facilitating tailored, multidisciplinary treatment.

References

1. Hamdan MA, Rock WP. Supernumerary teeth: review of the literature and a survey of 152 cases. *Int J Paediatr Dent.* 2002;12(4):244–254.
2. Segura JJ, Jimenez-Rubio A. Talon cusp affecting permanent maxillary lateral incisors in 2 family members. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 1999;88(1):90–92.
3. Gupta T, Manuja N. Bilateral fusion of primary mandibular incisors: a rare case report. *J Clin Diagn Res.* 2015;9(12):ZJ01.
4. Omer RS, Anthonappa RP, King NM. Determination of the optimum time for surgical removal of unerupted anterior supernumerary teeth. *Pediatr Dent.* 2010;32(1):14–20.

5. Hattab FN, Yassin OM, Al-Nimri KS. Classification and prevalence of talon cusps. *Int J Paediatr Dent.* 2007;8(3):60–67.
6. Bansal AV, Choudhary P, Kulkarni VK, Bansal A, Shashikiran ND. Talon cusps: conservative management. *J Clin Pediatr Dent.* 2010;35(4):345–348.
7. Ramalingam K, Gajula P. Mandibular talon cusp: A rare presentation with the literature review. *J Nat Sci Biol Med.* 2011;2(2):225–228.
8. Prevalence of developmental dental anomalies in Indian population. *J Indian Soc Pedod Prev Dent.* 2017;35(10):data.
9. Mandibular talon cusps: a systematic review and data analysis. *J Clin Exp Dent.* 2014;6(1): e99-e104.