

Supernumerary Maxillary Lateral Incisor with Dens Evaginatus in Maxillary Second Premolar: A case report

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Introduction

Teeth that are present in addition to the normal series are called as supernumerary teeth¹. The prevalence of supernumerary teeth in permanent teeth varies from 0.1% to 6.9%²⁻⁴. Supernumerary teeth have various presentations; unilateral or bilateral, single or multiple⁵. The most common supernumerary tooth is mesiodens, which is located between two maxillary central incisors^{6,7}. Supernumerary lateral incisor is not a common finding.

Similarly, dens evaginatus is a developmental anomaly of the tooth resulting into a tubercle or protuberance from the tooth surface. It consists of enamel, dentin and a thin extension of pulp⁸. Supernumerary cusp, Leong's premolar, occlusal enamel pearl, interstitial cusp are the synonyms of dens evaginatus⁹.

This is an unusual case of supernumerary maxillary lateral incisor with dens evaginatus in maxillary second premolar.

Case Report

A 24-year-old male visited out patient dental department of Tribhuvan University Teaching Hospital with complains of irregular and yellowish teeth. The patient did not complain of any pain or any discomfort in the teeth. On extraoral examination, there was no abnormality seen in temporomandibular joint or facial symmetry, and lymph nodes were non-palpable. On intraoral examination, crowding was evident in upper and lower anterior region. Upper arch had an additional tooth in anterior aspect. The additional tooth was located in right side adjacent to the permanent lateral incisor. The tooth had similar morphology to that of lateral incisor and was diagnosed as supernumerary lateral incisor. On thorough examination, there was a tubercle in the

occlusal surface of maxillary left second premolar. This protuberance had a layer of enamel and was diagnosed as dens evaginatus or Leong's premolar. The patient had calculus, so oral prophylaxis was advised. For crowding patient was advised for orthodontic treatment. Since, patient did not present with any discomfort, and teeth were not decayed, radiographs were not taken.

Discussion

Supernumerary teeth can lead to multiple complications like crowding of teeth, displacement of teeth or formation of cyst^{10,11}. A supplemental tooth is a supernumerary tooth which resembles teeth in normal series of dentition. It is challenging to identify a supplemental tooth from its counterpart. Patients with clefts show greater predisposition towards a supplemental lateral incisor¹. However, in this patient there was no associated cleft lip or palate. This supplemental lateral incisor was located in maxilla, as it is proposed that supplemental lateral incisors are more prevalent in maxilla than in mandible¹².

The various reasons postulated for supernumerary teeth are atavism, which means reversion to a more primitive type of dentition; or continued proliferation of the dental lamina producing additional tooth. The most accepted theory for supernumerary tooth is dichotomy theory. This theory is based on assumption that the tooth bud splits into two parts which may of equal or unequal sizes. This results into an additional tooth¹³.

Presence of a supplemental tooth creates confusion in proposing a treatment plan. The dilemma is in identifying the supplemental tooth from the normal series tooth. In such cases, it is better to remove the unhealthy tooth or the tooth, which is located in an abnormal position¹. In our case, the patient was referred to the department of orthodontics to propose a treatment plan.

Dens evaginatus can also lead to numerous clinical problems including dental caries due to limited accessibility in fissures, occlusal interferences, trauma from occlusion and food impaction¹⁴. Selective grinding of these protuberance, removal of protuberance followed by restoration or reinforcement of tubercle with application of resin are some of the proposed prophylactic treatments¹⁵. In this patient, there was no carious lesion seen with dens evaginatus, and periodontium of opposing tooth was intact, hence, no prophylactic treatment was considered. A careful monitoring is required in cases of dens evaginatus due to proximity of pulp to the tubercle and increased chances of caries or tubercle fracture leading to pulpal involvement. Moreover, dens evaginatus in this case was present unilaterally contrary to the common bilateral presentation.

These anomalies contribute to uniqueness of any dentition. Dental identification is based on the uniqueness of any dentition, and has played significant role in Disaster victim identification in Nepal¹⁶⁻¹⁸. Therefore it is recommended to not only identify such anomalies but also to mention them in dental records, which may be of use as ante-mortem dental records in case of a disaster.

Conclusion

The presence of a supplemental lateral incisor is not very common, and the presence of Leong's premolar in the same patient is rare. This report highlights the importance of thorough clinical examination in identifying these anomalies.

Conflict of Interest: Nil

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Figures



Figure 1: Supplemental Lateral Incisor on right side of maxilla



Figure 2: Dens Evaginatus on left second premolar (indicated by arrow)