Supplemental lateral incisor is a supernumerary tooth located in the premaxilla that may lead to a variety of dental problems such as, impaired dentofacial aesthetics, malocclusion and low self-esteem. It may be single/multiple and erupted/impacted, commonly found in males. Management includes surgical extraction of the supplemental teeth. This article presents a case of palatally placed supplemental lateral incisor with maxillary anterior teeth crowding. Accordingly, early diagnosis and treatment is suggested to prevent orthodontic and pathologic complications.

**Key words:**
Supernumerary tooth; supplemental tooth; Dental disturbances; Management

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1. INTRODUCTION

Supernumerary tooth (ST) is defined as a developmental anomaly of number, characterized by the presence of an extra tooth in addition to the normal dentition. It can affect both maxilla and mandible; however, its occurrence in the mandible is rare. Prevalence of ST varies between 0.3 and 3.8% of the population. ST in the primary dentition is a less common finding, with one-fifth of this seen in the permanent dentition. The etiology of ST is not known. Over the years, various theories have been suggested, which include dichotomy of the tooth bud, hyperactivity of the dental lamina and a combination of genetic and environmental factors. The phylogenetic relict theory stated that man originally had six incisors, and ST in modern man is a remnant of his prehistoric dentition. ST may occur as a single isolated anomaly or in association with cleft lip and palate, Down’s syndromes, Cleidocranial dysplasia. ST may be found in any region of the dental arch. It seems that positive family history is one of the predisposing factors. The term supplemental tooth, first used by Tomes more than a century ago, refers to an extra tooth resembling a tooth of the normal series of the dentition. The term “superlative” can be used for ST. Different classifications on supernumerary teeth described ST as normal, incisiform, or eumorphic. Supplemental maxillary incisors are much less common than conical or tuberculate ST in this region. Supplemental maxillary lateral incisors seem to be more commonly found than central incisors based on a study of 8,500 school children in which eight supplemental maxillary lateral incisors and only one central incisor was found. In this report we presented a case of palatally placed supplemental lateral incisor with crowded maxillary anterior teeth.

2. CASE REPORT

A 12-year-old-boy, referred to our specialty, with crowded maxillary anterior teeth with occlusal interference. A review of his medical, dental history showed nothing remarkable. Radiography showed supplemental lateral incisor in the anterior...
maxilla. The supplemental lateral incisor was extracted under local anesthesia.

Figure 1: Supplemental lateral incisor, a. Intraoral view of labially placed supplemental lateral incisor, b. Radiographic view of labially placed supplemental lateral incisor, c. Supplemental lateral incisor after extraction, d. Clinical view of socket after supplemental lateral incisor extraction.

3. DISCUSSION

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 ST is derived from independent local hyperactivity of the dental lamina, has been more accepted. According to this hypothesis the lingual extension of an additional tooth bud leads to a eumorphic supernumerary tooth, while the rudimentary form arises from proliferation of epithelial remnants of the dental lamina induced by pressure of the dentition. If it causes any disturbance during eruption or alignment of permanent dentition, the dentist should plan extraction during mixed dentition.5

Supernumerary incisors may cause delayed eruption of the permanent teeth, displacement or rotation of adjacent teeth. The present case showed eumorphic type of supernumerary or supplemental lateral incisor. It may occur in either arches and in both dentition. Prevalence of supernumerary teeth is 0.1 to 3.8%. Single supernumerary tooth is more common and accounts for 76-86% of the cases, but multiple are very rare. Various complications may occur as the result of the presence of ST, that includes crowding, delayed eruption, spacing, impaction of permanent incisors, abnormal root formation, alteration in the path of eruption of permanent incisors, median diastema, cystic lesions, intraoral infection, rotation, root resorption of the adjacent teeth or even eruption of incisors in the nasal cavity, and retained primary teeth. Adequate clinical and radiographic diagnosis and a sound surgical intervention with proper behavior management must be considered if early extraction is essential.

The surgical removal of impacted or unerupted ST should be performed very carefully to avoid damage to the adjacent permanent teeth, which might lead to ankylosis, displacement, rotation, and ectopic position. It also has been stated that the clinician should be cautious to prevent possible complications like blood vessels and the damaging of nerves during the manipulation of the tooth, fracture of the maxillary tuberosity, perforation of the maxillary sinus, the pterygomaxillary space, and the orbit.2

In the present case, the supplemental lateral incisor erupted palatally and could be extracted without any complications. Orthodontic management is planned for the correction of maxillary anterior crowding.

4. CONCLUSION

Human dental development is a dynamic interaction between genetics and the environment. Changes in the initial stages result in hyperdontia, such as supplemental teeth, or hypodontia. Early diagnosis and extraction followed by orthodontic treatment is often indicated with regular follow up assessments.
5. REFERENCES


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