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Early Diagnosis and Management of Supplemental Primary Maxillary Lateral Incisor

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Case Report

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ABSTRACT

Supernumerary teeth are a developmental anomaly present during the primary and early mixed dentition stages. It is more commonly seen in permanent dentition and more frequently in incisor region. Supplemental tooth is a type of supernumerary tooth which resembles tooth shape and also supplements for occlusion. This paper reports an uncommon clinical case which had the presence of supplemental maxillary lateral incisor in primary dentition in a 7-year-old female child.

INTRODUCTION

A supernumerary tooth is a tooth that is additional to the normal set of teeth and are most commonly seen in the anterior maxillary region^[1]. Supernumerary teeth are more common in permanent dentition as compared to primary dentition. The prevalence is 0.15–1% in permanent dentition and 0.3–0.6% in the primary dentition with proportion of 2:1 for male sex^[2]. The presence of a supernumerary tooth can cause a lot of complications. It may cause the delayed or impaired eruption of succedaneous teeth (26–52%), displacement or rotation of permanent teeth (28–63%), crowding, abnormal diastema, or premature space closure, dilaceration, cyst formation (4–9%), or eruption into nasal cavity^[3]. A lot of theories have been proposed to explain the presence of supernumerary teeth but the exact etiology remains obscure. According to the most accepted theory, it results from localized and independent hyperactivity of dental lamina leading to formation of additional tooth germ. Genetics is considered to play an important role in the development of supernumerary teeth^[4].

CASE REPORT

A 7-year-old girl reported to the Department of Pediatric and Preventive Dentistry with the chief complaint of an extra tooth in the upper left front tooth region. The family and medical history of the child patient was not significant. Thorough intraoral examination revealed the presence of complete set of primary teeth in both maxillary and mandibular arches and first permanent molars along with an extra tooth in upper anterior region (**Figure 1**). The extra tooth in maxillary anterior region was rotated due to arch length discrepancy.

Intraoral periapical radiograph revealed an extra tooth which resembled primary maxillary lateral incisor with normal crown and root formation present mesially to maxillary left lateral incisor (**Figure 2**).

The parents of the child patient gave no history of trauma. A systematic general examination was carried to rule out the presence of any associated syndrome.

The supplemental primary lateral incisor was extracted after obtaining parents consent (**Figure 3**).



Figure 1. A clinical image showing supplemental primary maxillary lateral incisor.



Figure 2. Intra-oral periapical radiograph of supplemental primary maxillary lateral incisor.



Figure 3. Extracted supplemental primary maxillary lateral incisor.

DISCUSSION

Supernumerary teeth can be found in almost any region of the dental arch and in both primary and permanent dentitions. A thorough clinical and radiographic evaluation is necessary to detect the presence of supernumerary teeth. The reason for low prevalence of supernumerary teeth in deciduous dentition is because it is ignored by the parents, is often of normal shape (supplemental type), erupt normally, and appear to be properly aligned^[5]. Supernumerary teeth can be classified morphologically as conical, tuberculate, supplemental or eumorphic and odontome. They can also be classified as single or multiple.

A supplemental supernumerary tooth closely resembles a normal tooth. Supplemental maxillary lateral incisor is the most commonly occurring supernumerary tooth in primary dentition. Based on a survey conducted in Denmark, it was reported that only two out of thirty primary teeth which were supernumerary were canine and others were mesiodens or lateral incisors^[6]. It has been reported that there exists a close relationship between supernumerary teeth in primary and the permanent dentitions^[7]. Supplemental teeth are commonly present bilaterally,^[8,9] but this case report presents a rare case of unilateral supplemental primary tooth of normal morphology.

A diagnosis of non-syndromic unilateral supplemental primary maxillary lateral incisor was made on the basis of clinical and radiographic findings and absence of any associated syndrome. This case report is also unique since it presents a fully erupted supplemental tooth, as most of the supplemental teeth remain unerupted and are associated with complications such as dentigerous cyst formation, root resorption and ankylosis^[10]. In the present case extraction was planned as the supplemental tooth was causing severe aesthetic and functional interference. Supernumerary teeth can be managed either by removal or by maintaining them in the arch and monitoring them periodically.

The ideal treatment plan for supernumerary teeth in primary dentition cannot be formulated. It depends on a lot of factors like the age of the child patient, cooperation from the child patient, size and shape of supernumerary tooth and physiological

resorption by erupting permanent tooth. Timely management is of paramount importance and should be done as soon as possible to prevent further possible complications.

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