

Bilateral supplemental maxillary lateral incisors in the permanent dentition- A rare case report

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ABSTRACT

Supplemental tooth resembles the supernumerary tooth in shape and also supplements for occlusion. These teeth might cause functional and/or aesthetic problems because they are usually located in the maxillary anterior region. They either occur single or multiple, unilateral or bilateral, erupted or impacted in one or in both jaws. Multiple supernumeraries are rarely seen in individuals with no other associated disease or syndromes. This report presents a case with bilateral supplemental maxillary permanent lateral incisors, without any symptoms of associated disorders.

KEYWORDS: Supernumerary tooth, Supplemental tooth, Permanent dentition

INTRODUCTION

Variations are commonly seen in the number of teeth that develop in the primary and permanent dentitions. The development of one or more supernumerary teeth in the primary or permanent dentition is known as Hyperdontia. Their occurrence may be single or multiple, unilateral or bilateral, erupted or unerupted and affecting one or both jaws. Supernumerary teeth are more commonly found in permanent dentition with more frequency for the maxillary arch than the mandibular arch with a strong predilection for the premaxilla. Supernumerary teeth can be mainly classified according to morphology (form) and location in the dental arches.¹ A study conducted by Kumar DK and Saraswathy Gopal K on 5000 people showed the distribution of the supplemental teeth according to the types: 25.8% teeth were found to be mesiodens, 24.1% teeth were found to be paramolars, 12.5% teeth were found to be supernumerary tooth found posterior to the third molar region and 37.5% teeth were found to be supplementary teeth. Distribution of the supplemental teeth according to their positions: 21.4% teeth were present in the arch, 32.1% teeth were found to be palatally/lingually displaced to the arch, 26.7% teeth were found to be labially/buccally displaced to the arch, 6.2% teeth were positioned at the distal end and 13.3% teeth were found to be impacted.² Supernumerary teeth are believed to develop either by splitting of the permanent tooth bud or from an extra tooth bud which arises from the dental lamina near the permanent tooth bud. Hyperactivity theory suggests that supernumeraries are formed as a result of local, independent, conditioned hyperactivity of the lamina.³ Supplemental teeth are rare as compared with dysmorphic teeth. Bilateral supplemental teeth are rarer as compared with unilateral supplemental teeth. The prevalence of bilateral maxillary

lateral incisor supplemental teeth is very low with few cases reported.

CASE REPORT

In April 2017, a 13 year old boy reported to the Department with his parents desiring to get his teeth cleaned. The patient had no relevant medical history and had already been to a dentist before and was aware of the supplemental teeth.

Intraoral Examination: Intra-oral examination revealed bilateral supplemental lateral incisors in the maxillary arch. (Fig 1)The supplemental lateral incisors were present in alignment with the arch. The supplemental tooth present on the right upper quadrant resembled the permanent maxillary lateral incisor (Fig 2) whereas the supplemental tooth on the left upper quadrant although resembled the maxillary lateral incisor, its crown was fused with its counterpart (Fig 3). No decay was found in the upper and lower arches (Fig 4 & Fig 5). The periodontal condition of the patient was poor and required oral prophylaxis.



Fig 1: Anterior bite

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Fig 2: Maxillary right lateral incisor and right supplemental lateral incisor



Fig 3: Maxillary left lateral incisor fused with left supplemental lateral incisor



Fig 3: Mandibular dentition



Fig 3: Mandibular dentition

Radiographic evaluation: The patient's parents had IOPA radiographs done earlier in relation to the bilateral supplemental teeth. An OPG (Orthopantomogram) was advised.

OPG and IOPAR showed normal root morphology for all the four maxillary

lateral incisors. The crowns of left maxillary lateral incisor and the supplemental lateral incisor are fused but with separate pulp chambers. (Fig 6) whereas the crowns of the right lateral incisor and the supplemental tooth appear normal (Fig 7). OPG also showed unerupted upper and lower third molars. (Fig 8)



Fig 6: IOPAR of left maxillary lateral incisor and supplemental lateral incisor



Fig 7: IOPAR of right maxillary lateral incisor and supplemental lateral incisor



Fig 8: Orthopantomogram

DISCUSSION

According to studies conducted by Anil P, supernumerary lateral incisor is rare, only a few cases have been reported in the literature.⁴ According to a case reported by Lo Giudice et al. patient reported with multiple supernumerary teeth and supplemental maxillary lateral incisors. The supplemental teeth were extracted to facilitate the eruption of the permanent dentition.⁵ Supernumerary teeth present in various regions of the maxilla and mandible can cause complications in the dentition has been reported by Shah et al. Such cases should be diagnosed and managed so that further complications can be minimized early in the developing dentition.³ Singla and Negi reported a case of non-syndromic, bilateral supplemental maxillary lateral incisors in the anterior region with crowding.⁶ Yildirim and Bayrak reported a case with bilateral supplemental primary as well as permanent maxillary lateral incisors.⁷ Literature reports another case of bilateral supplemental maxillary lateral incisors that were causing crowding and poor aesthetics in the patient.⁴ Nagpal et al. reported a case of non-syndromic, bilateral supplemental maxillary lateral incisors.⁸ Rodrigues et al. reported a case with a unilateral supplemental permanent maxillary lateral incisor. Supplemental teeth and their management should be considered along with a comprehensive treatment plan.⁹ Management should be based on the position of the supplemental teeth and the presence of any pathological changes, aesthetic problems or difficulty in maintaining oral hygiene. In this case, since the teeth were in alignment the parents did not want any orthodontic or aesthetic treatment.

CONCLUSION

Early determination and appropriate treatment options are mandatory for the management of supernumerary teeth.

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