

## Case Report

# The doppelganger tooth: A diagnostic conundrum!

Preeti Dhawan, Vivek Gaurav, Aditi Singh

Department of Pedodontics, Seema Dental College and Hospital, Rishikesh, Uttarakhand, India

### Abstract

Abnormalities in tooth morphology and number are not uncommon. However, an exact clone of a normal tooth is a recondite clinical finding. Presence of supplementary teeth is mostly noticed in maxillary anterior, molar or premolar region, followed by mandibular premolar region in descending order of its site of occurrence. Supplemental tooth in mandibular anterior has a low prevalence of 0.01%. This paper reports one such rare case of nonsyndromic incisive jumeaux in mandibular anterior region during mixed dentition period.

**Key words:** Ectopic tooth, lower incisor, mandible, mixed dentition, supernumerary teeth, supplemental teeth, tooth transposition

### INTRODUCTION

The presence of morphological variations in anatomical structures is not an exception for the dentition, may it be primary or permanent teeth. Supernumerary tooth is one of its types, which is an additional entity to the normal series and can be seen in all the quadrants of the jaw. Hyperdontia, a synonym for the same; is defined as a state in which there is any teeth or tooth substance in excess of the usual configuration of the normal number of deciduous or permanent teeth.<sup>[1]</sup>

The etiology of supernumerary teeth is still obscured and has been attributed to dichotomy of the tooth bud, the hyperactivity of the dental lamina or a genetic predisposition.<sup>[2-5]</sup> Supernumerary teeth may be classified on the basis of position or morphology<sup>[6]</sup> as anterior, para-premolars, para-molars, disto-molars, supplemental and rudimentary types.<sup>[1,7]</sup> The rudimentary form further classified into conical, tuberculate, and molariform types.<sup>[1]</sup> Howard lists odontoma as the fourth category of supernumerary tooth.<sup>[8]</sup>

Approximately, 90–98% of all supernumerary teeth occur in the maxilla.<sup>[1,2]</sup> The incidence in the mandibular anterior tooth area is about 0.01%.<sup>[9]</sup> It

has a male predilection in the permanent dentition,<sup>[10]</sup> while there is no significant sex prevalence in primary supernumerary teeth. Thus, we report a very recherché form of supplementary incisor in mandibular anterior region in a female patient that presented a diagnostic dilemma.

### CASE REPORT

A 10-year-old girl reported to Department of Paedodontics and Preventive Dentistry of Seema Dental College and Hospital for a routine dental checkup. Clinical examination revealed a mixed dentition stage along with class I molar relationship. There was caries with 85, mild crowding in mandibular anterior region and labial tipping of 21. There was ectopic eruption of extra mandibular incisor in place of 44 [Figures 1-3]. The patient was advised an orthopantomogram that revealed tooth buds of 44 and 45 in the alveolar bone and incomplete root formation with the ectopic lateral incisor [Figure 4]. Since the patient was not willing for any treatment for this condition so it was left untreated, and the patient was put on periodic recall after 6 months.

### DISCUSSION

The occurrence of supernumerary teeth in the mandibular arch is rare in Indian population with a prevalence of 0–1.5%.<sup>[11,12]</sup> Very few cases of

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#### Address for correspondence:

Dr. Preeti Dhawan,  
93/2, Mall Road, Dehradun - 248 003, Uttarakhand, India.  
E-mail: Preetidhawan10@gmail.com



Figure 1: Intraoral view



Figure 2: Intraoral view of mandibular arch



Figure 3: Ectopic eruption of extra mandibular incisor w.r.t 44



Figure 4: Orthopantomogram revealed tooth buds of 44 and 45 in the alveolar bone and incomplete root formation with the ectopic lateral incisor

five mandibular incisors have been reported in the literature.<sup>[13]</sup>

In the present case, supernumerary mandibular incisor had a well formed crown and incomplete root formation; it was separate and normal in all morphological patterns, both clinically and radiographically. In such conditions, their differentiation from their supernumerary counterparts assumes a difficult procedure thereby making it a diagnostic conundrum.<sup>[14-16]</sup>

Distinguishing between a normal tooth and its supplemental “doppelganger” was difficult, in this case. Earlier case reports suggested that the supplemental teeth may exhibit deep palatal pits and coronal invaginations, or that when no morphological abnormalities are noted; the tooth with minimum measurement among other anterior teeth is regarded as supernumerary one.<sup>[9,17]</sup> Interestingly, in our case, both these features stood irrelevant. This condition was considered to be genetic<sup>[17]</sup> which was not the situation in our case, where the siblings did not report with any supernumerary teeth.

Tooth transposition or ectopia being a differential diagnosis for this case was required to be ruled out. Tooth transposition is an uncommon anomaly having an abstruse etiology wherein a permanent tooth develops and erupts in the position which is normally occupied by other permanent teeth.<sup>[18]</sup> Dental ectopia is characterized by the change in the normal pathway of tooth eruption, which may occur in any region of the alveolar and basal bone.<sup>[19]</sup> Mandibular tooth transposition account for about only 15–30% of all tooth transpositions and the prevalence rate for mandibular incisor is 0.03%.<sup>[20,21]</sup>

Thus transposition was ruled out as there are already four incisors present in the normal position in the mandibular arch. Treatment for this condition is generally extraction of the supplemental tooth followed by orthodontic intervention if required.

## CONCLUSION

An incisor supplemental tooth in place of premolar in the mandibular arch is an unusual finding in the mixed

dentition. This finding surely opens up a pandora's box in terms of anomalies associated with supernumerary teeth.

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