

Case Report



Anatomical variation in a Brazilian human mandible: case report of a supernumerary permanent lower incisor

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ABSTRACT

Supernumeraries can appear in both deciduous and permanent dentitions, but they are usually seen in the permanent dentition. These teeth are in excess of the normal series. Several theories have been proposed as regards the causes of occurrence of supernumerary teeth. This paper reports on one supernumerary tooth permanent in lower incisor region encountered in a dry adult human mandible, gender male, belonging to the anatomy laboratory of the Department of Basic Sciences of Faculty of Dentistry of Araçatuba, Paulista State University, Brazil. © IJAV. 2010; 3: 151–152.

Key words [supernumerary] [teeth] [lower incisor] [mandible]

Introduction

Supernumerary teeth are a developmental disturbance encountered in the dental arches. These teeth are in excess of the normal series [1]. Although this problem seems to be caused by genetic or environmental factors, the etiology is unknown. They may be found nearly anywhere in the dental arches or jaws. They may be single, double or multiple, unilateral or bilateral, and in one jaw or both jaws at the same time. Supernumerary teeth might resemble normal teeth or be amorphous [2].

Supernumeraries can appear in both deciduous and permanent dentitions, but they are usually seen in the permanent dentition [3]. The most common supernumerary tooth is mesiodens, which is usually small and conical, between maxillary incisors [2]. This is generally followed by maxillary lateral incisor, maxillary fourth molar, and mandibular third premolar supernumeraries. Maxillary premolar, canine and mandibular fourth molar are the least common ones. The incidence in the mandibular anterior tooth area is about 0,01% [4]. This paper describes a rare case of a supernumerary tooth in the anterior area of the mandible.

Case Report

During the course of craniology discussion with undergraduate students in the anatomy laboratory of the Department of Basic Sciences, Faculty of Dentistry of Araçatuba of Paulista State University, Brazil, a supernumerary permanent lower incisor tooth was

observed in an adult Brazilian dry mandible of a male (Figure 1).

Due to its location and morphology, it suggests that the supernumerary tooth presented is a lower lateral incisor that is joined to the lower lateral incisor normal in the mandibular arch through their contact faces distal and mesial, respectively (Figure 2).

Discussion

Several theories have been proposed as regards the causes of occurrence of supernumerary teeth, including atavism theory [1], mechanical tooth germ separation theory, tissue induction theory, and dental laminal morphological disturbance theory [4,5]. However, none of these theories alone offers a sufficient explanation for this phenomenon [5].

In most previous reports, supernumerary teeth were found more frequently in the permanent dentition than in the deciduous dentition [6,7]. Probably, the frequency of deciduous supernumerary teeth has been underestimated because of exfoliation or extractions [7]. A higher prevalence of supernumerary teeth was reported for Chinese children than for white children [8].

This paper reports one tooth supernumerary lower incisor, encountered in a Brazilian dry adult human mandible. Few studies have reported cases of tooth supernumerary lower incisor. Cho, which reported the case of a girl with bilateral supernumerary permanent lower incisors and demonstrated that if not removed promptly,

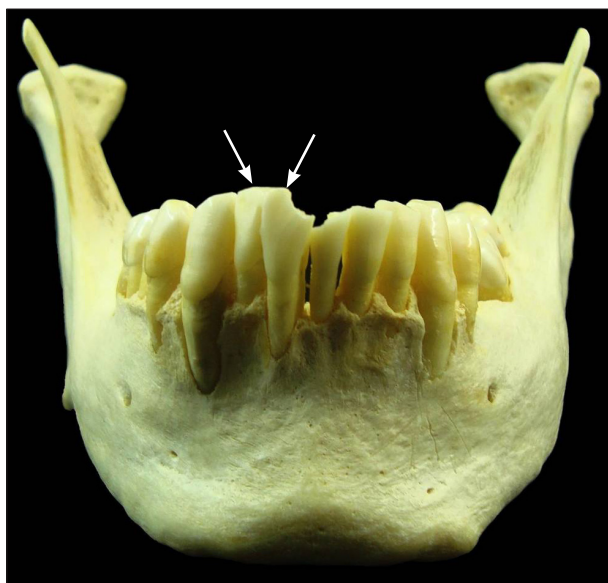


Figure 1. Frontal view of the mandible showing the two lateral incisors (Arrows: lateral incisors)



Figure 2. Occlusal view showing the union of the lateral incisors on the mesial surface.

these supernumerary teeth will lead to crowding and malocclusion [9]. Tanaka et al. described a rare case of bilateral completely erupted supernumerary teeth found in the incisor region of the mandible of a 19-year-old Japanese female [10]. According to Fujita, hyperplasia of tooth germs may occur in areas with wide intervals between tooth primordia at the end of dental lamina; therefore, it does not easily occur in the mandibular anterior tooth area, where is a high inter-tooth primordium density and the occurrence of mandibular supernumerary incisor tooth reported in this study is considered rare [5]. Moreover, usually, this supernumerary tooth is extracted, becoming its permanence a rare case.

Conclusion

The knowledge of the existence of supernumerary teeth have importance due to the clinical implications that the occurrence of this anatomical variations may generate, especially, in rare cases of this variant.

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