

IPSILATERAL SUPPLEMENTARY LATERAL INCISORS: A CASE REPORT

ABSTRACT

Supernumerary teeth are one of the dental anomalies which occur due to the developmental disturbances in teeth. They can be seen in various shape and form. They can occur in both the deciduous and permanent dentition and can impose aesthetic and occlusion problems. Morphologically the supernumerary teeth exhibit various forms ranging from conical to tuberculate and supplemental types. Supplemental teeth as the name suggests are similar in shape to that of the normal prototype. In this particular case, we are reporting a case of ipsilateral supplemental permanent lateral incisors and the treatment approach which would subsequently facilitate the patient to undergo orthodontic treatment.

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KEYWORDS

Tooth. Supernumerary. Incisor.

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INTRODUCTION

Human dentition exhibits various types of dental anomalies. The term anomaly is used within medical literature to describe anything which is different from the normal variant and which invariably leads to functional disorders. Supernumerary teeth constitute one of the craniofacial anomalies attributable to disturbances in teeth development.¹

A supernumerary tooth is defined as any tooth in addition to the usual number of teeth in both the deciduous and permanent dentition.² The permanent dentition is found to be more commonly affected than the deciduous.³ Different studies provide us with a wide range of its prevalence ranging from 0.1% to 3.6% in permanent dentition.^{4,5} Several studies have shown different sexual predilection with majority of the studies showing male predominance.⁶⁻⁸

Supernumerary teeth can be of varying types and can be classified according to their Shape (Conical, Tuberculate and Supplemental), Number (Singular and Multiple), Position (Mesiodens, Paramolars, Distomolar and Parapremolar).⁹ The exact etiology of supernumerary teeth remain unclear and research therefore continues within this area.

CASE REPORT

A 32 year old Caucasian man approached the Centre of Specialized Dentistry

(CEO), Macatuba, São Paulo (SP) following referral by an orthodontist for extraction of certain teeth for orthodontic treatment. No relevant medical and family history was reported by the patient. On intraoral examination, supplemental lateral incisors were seen on the first and the fourth quadrant of the dental arches (Figure 1). The patient was unaware of the supernumerary teeth when he had first approached his Orthodontist. An impacted third molar was also seen on the fourth quadrant. The teeth present were 11, 12, 12S, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25, 26, 27, 28, 31, 32, 33, 34, 35, 36, 37, 38, 41, 42, 42S, 43, 44, 45, 46, 47, 48.

The supplemental lateral incisors had the morphology similar to that of the normal permanent lateral incisors. However, the root of the mandibular lateral supplemental incisor was relatively smaller than its normal counterpart.

Oral Panoramic radiography (OPG) revealed complete root configuration of all the teeth with an impacted third molar on lower right quadrant (Figure 2). Periapical radiograph revealed that the supplemental lateral incisors had an intact crown and root without any pathological deformity (Figure 3). No signs of any cyst or other vulnerable disease were evident.

Taking the OPG, periapical radiographs and impression cast of both the arches into consideration, extraction of all the third molars

and the supplemental lateral incisors was planned. Following the extraction of these

teeth, the patient was referred back to his orthodontist for further appropriate treatment.

Figure 1. Intraoral photographs showing the presence of supplemental permanent lateral incisors (in arrows) on both the right maxillary (A) and mandibular (B) arches.

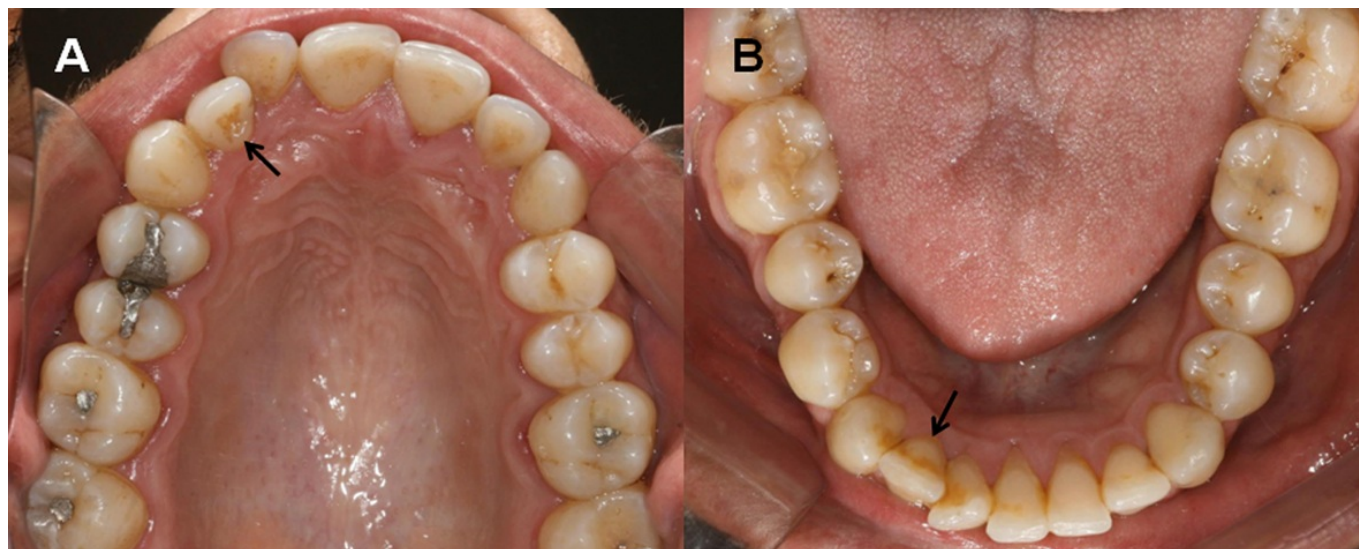
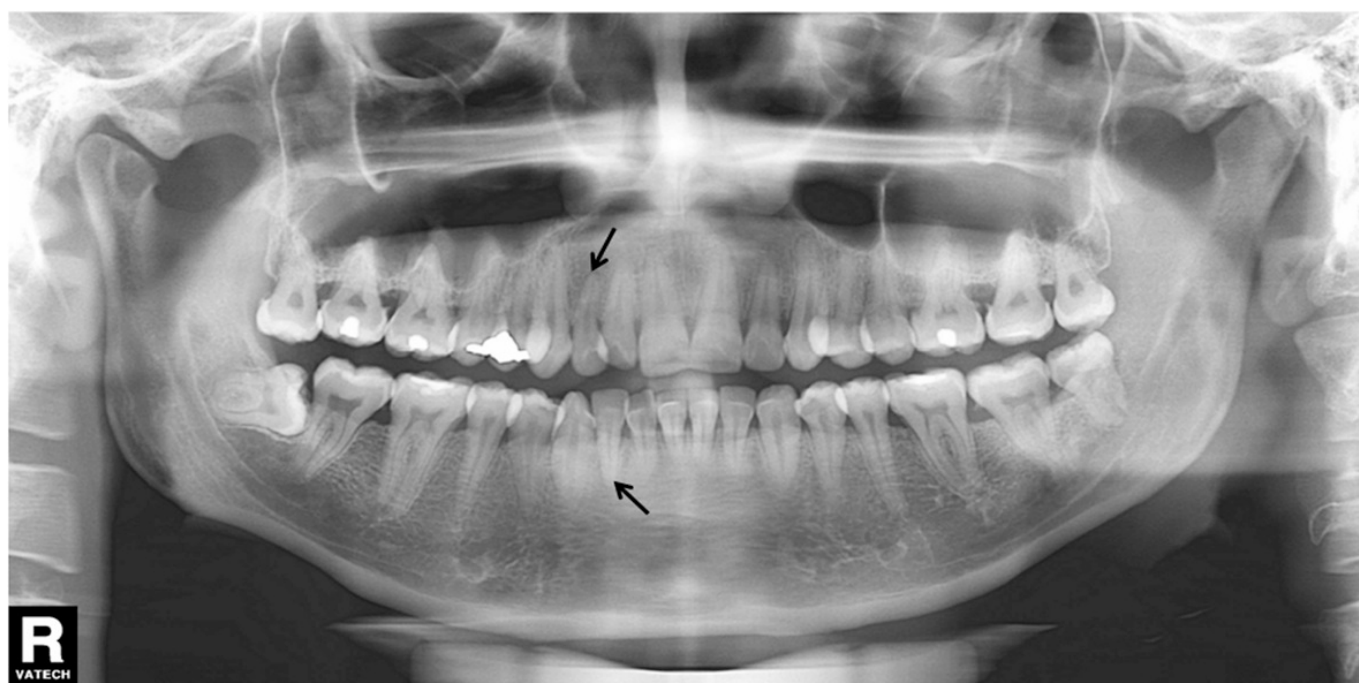


Figure 2. Panoramic radiograph showing the relative position of the supplemental lateral incisors to the adjacent permanent teeth.



DISCUSSION

Supernumerary teeth are described as the teeth which are seen in addition to the

usual number of teeth in both the deciduous and permanent dentition. It is one of the developmental disturbances of the teeth which

are relatively common to find during dental practice. Supernumerary teeth are more common in the permanent dentition than the deciduous dentition. In the literature review carried out by Scheiner and Sampson⁸ (1997), they reported that the incidence of

supernumerary teeth in deciduous dentition is around 0.3 to 1.7 per cent of the population while its incidence in the permanent dentition is between 0.1 to 3.6 per cent of the population.

Figure 3. Periapical radiograph of both the supplementary lateral incisors (A and B) showing no involvement of any pathological deformities and their morphological similarity with the adjacent permanent lateral incisors.



The etiology of supernumerary teeth is not very clear and various authors have suggested several theories. Environmental and genetic factors form the basis of most of these theories. Hyperactivity of the dental lamina, atavism, splitting of the tooth germs are some of the proposed theories.¹⁰ Recently, many

studies are being conducted to unveil the molecular mechanism underlying the occurrence of supernumerary teeth.¹¹

Supernumerary teeth have been classified in various types by different authors. The most common method use for the classification of supernumerary teeth is based

on its morphology. Conical, tuberculate, supplemental and odontome are the usual morphologies of supernumerary teeth. Amongst these types, conical is the most common and is seen in around 75% of the reported cases, followed by tuberculate (12%), supplemental (7%) and odontoma (6%).¹² Supplemental teeth are referred as the duplication of the normal teeth and which are generally seen at the end of that particular tooth series.^{8,13-15}

Authors in the past have reported cases of bilateral supplemental maxillary lateral incisors before, however, a case of ipsilateral supplemental permanent incisors has seldomly been reported.^{15,16} Our case reports an incidence of ipsilateral supplemental permanent lateral incisors. The patient was unaware of his supplemental teeth and only became aware of them when he approached his orthodontist with aesthetic problems. The similarity in the morphology of the supplemental teeth to its normal prototype prevents its detection at early stage.

In this particular case, the patient was advised to undergo extraction of the supplemental teeth along with the third molars. Medical and intraoral clinical examination alongside radiographical investigations did not reveal any association with syndromes or other sinister pathology. Extraction of the teeth was safely performed without any complications. The patient was

referred back to the orthodontist for further treatment.

CONCLUSION

Many cases of supernumerary teeth have been reported in the past by various authors. This has aided us in understanding the different morphologies of supernumerary teeth and their prevalence. Some types of supernumerary teeth are more common than the others. In this case report, a rare case of ipsilateral supplemental permanent lateral incisors was described. Management of this condition involved extraction of the supplemental teeth and also the third molars of each quadrant to facilitate the required orthodontic treatment.

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