

MANDIBULAR AND MAXILLARY DISTOMOLARS IN THE ORTHODONTIC CHILD PATIENT: A REPORT OF 3 CASES.

O.O. Jaiyeoba and J.U. Ifesanya

Department of Child Oral Health, University College Hospital, Ibadan.

Correspondence:

Dr. O.O. Jaiyeoba

Child Oral Health Department,
University College Hospital,
Ibadan.

E-mail: spiky_joof@yahoo.com

ABSTRACT

Multiple supernumerary molars are rare and are usually detected on routine radiological investigations. Supernumerary molars could occur as paramolars or distomolars. Occurrence of distomolars in children is reported to be a rare occurrence. In this report of 3 cases, bilateral maxillary and mandibular impacted fourth molars were observed as incidental findings on orthopantomograms in children between the ages of 12 and 15 years.

Keywords: Supernumerary teeth, Supernumerary molars, Distomolars, Fourth molars

INTRODUCTION

Supernumerary teeth are teeth in excess of the normal number. They may be found either in the anterior or posterior region where they may be fused to the third molars.¹⁻² They may be single or multiple in number. They may be unilateral or bilateral in location occurring in one or both jaws. In terms of shape, they could be conical, composite odontoma or tuberculate. They may also have anatomical shape of naturally occurring teeth in which case they are called supplemental teeth. They may be erupted or unerupted.^{3,4} There is generally a higher prevalence of supernumerary molars in the maxilla with values as high as between 75-88.9%, and they are often unilateral and impacted.⁵⁻⁶ Grimanis et al. reported that there is no gender difference in the prevalence of supernumerary molars⁵ while some other studies found that males were more often affected.^{7,8}

The exact aetiology of supernumerary teeth is unknown though suggestions have been made that they may result from reversion or due to aberrations during embryological formation resulting in hyperactivity of the permanent or primary dental lamina.^{7,9} It was also suggested that they may result from division of a developing tooth germ giving rise to development of multiple individual teeth.^{5,10}

Supernumerary teeth in the molar region are either paramolars or distomolars. Paramolars are found adjacent (Buccal or palatal) to the molar teeth and are usually off the dental arch whereas, distomolars are found distal to the third molars and are generally in line with the dental arch.¹¹ Distomolars appear rudimentary more commonly in the maxilla or as supplemental teeth more commonly in the mandible.^{5,12}

Here, we describe the clinical and radiographic characteristics of 3 patients with maxillary and mandibular distomolars.

Case 1

A 15-year old male presented at the Orthodontics Clinic of the University College Hospital, Ibadan with a complaint of having proclined maxillary incisors which he noticed about a month before presentation. There was no contributory medical history. He appeared healthy with no features suggestive of any syndrome. Intraoral examination revealed all teeth present except



Fig. 1: Clinical photograph

the third molars. An assessment of Angles class II subdivision right complicated by; increased overjet of eight millimetres, mild spacing on both upper and lower anterior segments, incisal class II relationship and increased overbite was made. He was asked to take an orthopantomogram as part of plans for orthodontic treatment. This however revealed impacted third molars and distomolars in all quadrants.



Fig. 2: Orthopantomogram showing impacted third molars and distomolars in all quadrants.

He had extractions of these third molars and distomolars done under general anaesthesia. Post-operative follow up to two months revealed satisfactory healing with no complications. He is however yet to commence orthodontic treatment.



Fig. 3: Picture of the impacted third molars and distomolars post-operatively

Case Two

A 14-year old male presented at the Orthodontics Clinic of the University College Hospital, Ibadan with complaints of malaligned teeth which he noticed four years before presentation. There was no contributory medical history. He appeared healthy with no features suggestive of any syndrome. Intraoral examination revealed all teeth present except the third molars. An



Fig. 4: Clinical Photograph

assessment of Angles class I malocclusion on skeletal pattern 2 complicated by; severe lower arch crowding, moderate upper arch spacing, increased overjet of nine millimetres, constricted upper and lower arches and traumatic bite was made. He was asked to take an orthopantomogram as part of plans for orthodontic



Fig. 5: Orthopantomogram showing impacted third molars and distomolars in 3 quadrants

treatment. This revealed impacted third molars, bilateral mandibular distomolars and a unilateral maxillary distomolar. He had extractions of these third molars and distomolars done under general anaesthesia. Post-operative follow up to two months revealed satisfactory healing with no untoward complications. Orthodontic treatment has been commenced with straight wire appliance.



Fig. 6: Picture of the impacted third molars and distomolars post-operatively

Case Three

A 12-year old female presented at the Orthodontic Clinic of the University College Hospital, Ibadan with a complaint of malalignment of her teeth. There was no contributory medical history. She appeared healthy with no features suggestive of any syndrome. She had clinically evident supernumerary teeth and an unerupted upper left central incisor.

She was asked to take an orthopantomogram as part of plans for orthodontic treatment. This however



Fig. 7: Clinical photograph

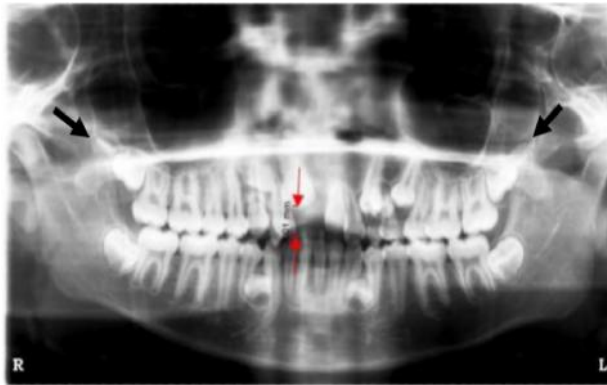


Fig. 8: Pre-orthodontic treatment orthopantomogram showing impacted maxillary third molars and distomolars

revealed impacted mandibular third molars and bilateral maxillary distomolars and supplemental first premolars and canine. Orthodontic treatment with fixed appliance was done. She however had extractions of the third molars, maxillary distomolars and other impacted supplemental first premolars and canine done under general anaesthesia following orthodontic treatment in line with the decision of her parents. Post-operative follow up to a month revealed satisfactory healing with no complications.



Fig. 9: Post-orthodontic treatment orthopantomogram showing impacted maxillary distomolars



Fig. 10: Picture of the impacted third molars, maxillary distomolars, supplemental first premolars and canine post-operatively

DISCUSSION

Prevalence of supernumerary molars is reported as between 1-2%.^{13,14} A previous study in this institution in 2012 revealed 2 distomolars out of a total of 26 supernumerary teeth observed in a 2-year review.¹⁵ Stafne reported that most upper fourth molars are blunt, multicuspoid and much smaller than the third molars. This is supported in this case report as the roots of the supernumerary molars were found to be blunt and the teeth were significantly smaller in size than the third molars.

The literature reveals that maxillary supernumerary molars are more commonly seen in adults while mandibular supernumerary molars are rare.^{8,16} However, supernumerary molars are reported to be extremely rare in children, especially the mandibular type.⁸ The authors have presented three cases of multiple mandibular and maxillary supernumerary molars in children.

Most supernumerary teeth are typically asymptomatic.¹⁷ In this report, they were asymptomatic, impacted and associated with impaction of the third molars. Other complications associated with supernumerary teeth include; delayed eruption of permanent teeth, crowding, diastema, rotations, resorption of adjacent teeth and roots as well as cystic degeneration.¹⁸ Supernumerary teeth are indicated for immediate extraction if associated with any of the above complications.¹⁸ In this case report, extractions of the supernumerary teeth were indicated and carried out as these teeth were impacted and associated with failure of third molar eruption in all cases.

CONCLUSION

The occurrence of multiple distomolars is a rare phenomenon especially in children. These distomolars are often seen as incidental findings on routine radiographic examination.

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