

Bilateral Impacted Maxillary Distomolars in An Adolescent – A Rare Case Report

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Citation of this Article: Dr. Vishal Ramachandran, Dr. Poonguzhali Pugazhendhi, Dr. Divya Prabha K S, “Bilateral Impacted Maxillary Distomolars in An Adolescent – A Rare Case Report”, IJDSIR- February – 2025, Volume – 8, Issue – 1, P. No. 01 – 05.

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Type of Publication: Case Report

Conflicts of Interest: Nil

Abstract

Supernumerary teeth refer to the occurrence of additional teeth beyond the normal dentition. Distomolars are supernumerary teeth that are seen distal to the third molars. The aetiology is multifactorial, with both genetic and environmental factors playing a role in their development. Higher incidence of supernumerary teeth is seen in conditions such as cleidocranial dysplasia, gardner syndrome, and familial hyperdontia. The presence of multiple supernumerary teeth in non-syndromic individuals is quite rare. The diagnosis of supernumerary teeth such as distomolars are predominantly through radiographic imaging such as panoramic radiographs or cone-beam computed tomography scans. Potential complications that can arise

with the presence of distomolars are resorption of adjacent tooth root, cyst formation and dental malocclusion. Here, we report a case of bilateral deeply impacted maxillary distomolars in a non-syndromic individual who underwent surgical removal under local anaesthesia. The patient demonstrated satisfactory healing and adequate mouth opening at 1 week follow-up.

Keywords: Supernumerary Teeth, Distomolar, Non-Syndromic Individual.

Introduction

Supernumerary teeth refer to the malformation where there is presence of additional number of teeth than in normal dentition in either the upper or lower jaw [1]. The condition affects both genders equally with slight

male predilection [2-3]. The incidence of hyperdontia is reported to be 0.5–5.3%, and 0.2– 0.8% in permanent and primary dentition respectively [4]. The occurrence of supernumerary teeth is more common in several syndromes such as cleidocranial dysplasia, Gardner's syndrome, Ehlers–Danlos syndrome, and Fabry–Anderson syndrome [5]. However, they may also occur in non-syndromic individuals as single, double, or multiple teeth and as unilateral or bilateral [6].

The aetiology of supernumerary teeth remains unknown, though several theories have been proposed to explain their origin. These include the phylogenetic theory, dichotomy theory, hyperactivity of the dental lamina, environmental and genetic factors [7]. The most frequent site for supernumerary teeth is the maxillary molar region, followed by the maxillary lateral incisor, mandibular premolar, and mandibular molar regions [8-9]. Supernumerary teeth may either erupt normally or remain impacted, potentially leading to complications such as adjacent root resorption, failure of eruption, dental caries, crowding, midline diastemas, and the development of odontogenic cysts to name a few [10-11].

These teeth are often discovered incidentally through panoramic radiographs or computed tomography. Treatment options vary according to the severity of the associated complications and may include clinical monitoring, surgical extraction, and orthodontic intervention. Here, we present a case of bilateral impacted maxillary distomolars in an adolescent, which caused dental caries and crowding.

Case Report

An early adolescent male reported to the Department of Oral and Maxillofacial surgery with complaints of pain in the upper right and left back tooth region. On local examination, patients face was apparently symmetrical

with non-palpable cervical groups of nodes. There was difficulty in mouth opening present. Patient's medical and familial history was non-contributory and there was no sign of any systemic diseases or syndromes.

An intraoral examination demonstrated Class I malocclusion, characterized by spacing in the upper anterior region, crowding in the lower arch, and clinically missing upper and lower right and left third molars (Figure 1). Soft tissue examination revealed no abnormalities in both the arches.

Following clinical examination, panoramic radiograph was taken which revealed bilateral deeply impacted supernumerary teeth in the upper arch distal to the third molars (Figure 2). The crown and root of these on the radiograph quite resembled a permanent third molar. Thus, these supernumerary teeth were diagnosed as a distomolars.

The patient was informed about the condition and advised removal of third molars and distomolars due to the possibility of deterioration of the surrounding periodontal health and development of odontogenic cysts. The patient chose to undergo removal under local anaesthesia. A bilateral removal of the upper and lower third molars, along with the concurrent removal of the upper distomolars, was performed surgically (Figure 3). At 2 weeks follow-up, it was noted that the patient was pain free with satisfactory healing and adequate mouth opening. The patient was further referred to the Department of Orthodontics for management of malocclusion.

Discussion

Supernumerary teeth are often incidentally identified due to their asymptomatic nature in majority of cases. However, they are frequently linked with various dental abnormalities and pathologies. Commonly observed conditions include dental caries, formation of cysts,

adjacent teeth root resorption, and periodontal issues. Additionally, due to spatial constraints and pressure on adjacent teeth, these supernumerary teeth can lead to dental and occlusal disturbances such as crowding, dilaceration, malposition, and diastema.

In literature, supernumerary teeth are classified according to site, shape, morphology, and incidence. Depending on the site of occurrence it may be mesiodens, parapremolar, paramolar, and distomolar [12]. Supernumerary teeth are classified as 'eumorphic' or 'dysmorphic' based on their resemblance to normal teeth. Eumorphic supernumerary teeth closely resemble normal teeth, whereas dysmorphic supernumerary teeth exhibit significant morphological differences from normal teeth [13]. Based on their morphology, supernumerary teeth can be classified into four types: conical, tuberculate, supplemental, and odontoma. Among these, the conical type is the most prevalent, with an incidence ranging from 31% to 75% [14-15].

The aetiology of supernumerary teeth (hyperdontia) is multifactorial, involving genetic, environmental, and developmental factors. Genetic predisposition plays a significant role, often linked to syndromes such as cleidocranial dysplasia, Gardner's syndrome, and Down syndrome. Environmental influences, including trauma or infection during odontogenesis, may also contribute. Developmentally, hyperactivity of the dental lamina or aberrations in tooth bud proliferation can lead to extra tooth formation. While the exact cause remains unclear, a combination of hereditary and external factors is believed to be responsible [16].

The incidence of supernumerary teeth in non-syndromic individuals varies by population and dentition type. Studies report a prevalence of 0.1% to 3.8% in the permanent dentition and 0.3% to 0.8% in the primary dentition, with a higher occurrence in males [17]. The

most common type is mesiodens, found in the maxillary midline. The occurrence of distomolar is rare finding and bilateral occurrence is even more rare in non-syndromic individuals.

The treatment of an impacted distomolar tooth depends on its position, symptoms, and potential complications. Asymptomatic cases may be monitored with regular radiographic follow-ups. However, surgical extraction is recommended if the tooth causes pain, infection, cyst formation, malocclusion, or resorption of adjacent teeth.

Conclusion

The occurrence of distomolar supernumerary teeth is rare, with even fewer cases presenting bilaterally in non-syndromic individuals. Their management depends on individual case factors, including position, symptoms, and potential complications. Asymptomatic cases may be monitored with a wait-and-watch approach through regular radiographic follow-ups, while symptomatic or problematic cases may require surgical removal to prevent associated dental issues. A thorough clinical and radiographic evaluation is essential to determine the most appropriate treatment plan.

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Legends Figures

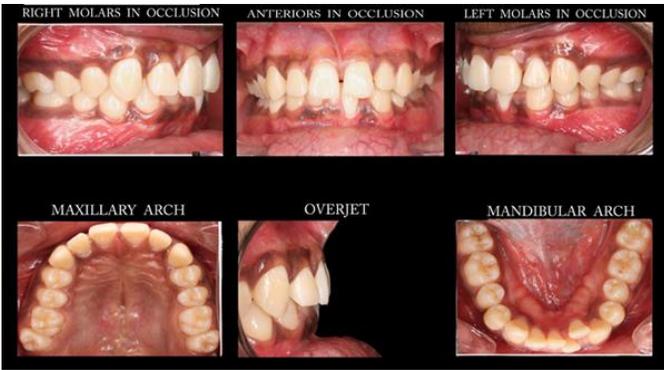


Figure 1: Intraoral clinical picture depicting crowding in dentition



Figure 2: X ray Orthopantomogram showing bilateral impacted molariform distomolar

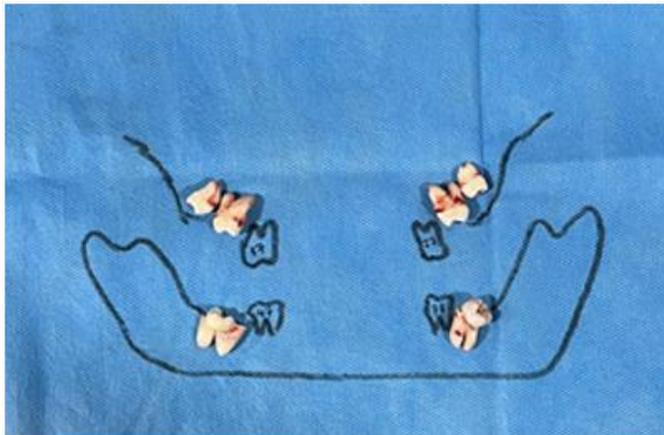


Figure 3: Representation of Surgical removal of distomolar and third molar teeth done under local anesthesia