

Three distomolar in single patient: A unique case report.

Abstract:

Supernumerary teeth are defined as those in addition to the normal series of deciduous or permanent dentition. Supernumerary teeth are more prevalent among males and in the permanent dentition. The exact etiology of supernumerary teeth is unknown, they may occur anywhere in the oral cavity. They may appear as a single tooth or multiple teeth, unilaterally or bilaterally, erupted or impacted in maxilla or both jaws.

Fourth molars, also called distomolars, are a variant in shape and number appearing as alterations during odontogenesis. They can be eumorphic or dismorphic, single or multiple, erupted or impacted, unilateral or bilateral, and can appear in both jaws. They are of unknown etiology, but there are several theories to justify these tooth alterations such as dental lamina duplication, its horizontal proliferation or its hyperactivity.

Hereby, we are presenting a unique case report of presence of three distomolars in a single patient at maxillary left side and mandibular right and left side.

Keywords: Distomolar, Supernumerary teeth, Paramolar.

Introduction:

Extra teeth in dentition are termed —Supernumerary teeth and are a very well known dental phenomenon [1] [2]. The prevalence of these teeth for permanent and primary dentition in various populations is between 0.5- 5.3% and 0.2-0.8%. Supernumerary teeth are more frequent in males than in females [3]. The aetiology of supernumerary teeth is not completely understood. Both genetic and environmental factors have been considered, several theories have been suggested to explain their occurrence, Atavism, Dichotomy theory, Dental lamina hyperactivity theory and Genetic factors. Supernumerary teeth can occur as singles, multiples, unilaterally or bilaterally and in the maxilla, the mandible or both [4] [5]. In this case report, a very rare and unique case of 3 distomolars in a single patient is reported.

Case report:

A 37 year old otherwise healthy male patient came to the dental clinic for cleaning of teeth. On examination revealed stain and calculus in lower anterior teeth on lingual side. Also a finding of horizontally impacted third molar was found in mandibular right and left side. An OPG was advised for determining position of third molar, which revealed surprising finding of presence of distomolars at 3 sites including maxillary left side, mandibular right side and mandibular left side. Maxillary left side distomolar was vertically impacted, while both mandibular distomolar were totally horizontally impacted (Fig. 1). Patient's medical and family histories were not significant and he did not have syndromic features and there was no history of occurrence of Supernumerary teeth and/or other dental anomalies among other members of his family. As the patient was not having any complaint right now, it was kept as it was and informed to patient.

Discussion:

A distomolar is a supernumerary tooth which is located distal to third molars. A paramolar is a supernumerary tooth situated lingually or buccally to a molar tooth. Distomolars along with paramolars are also known as fourth molars. A distomolar can have a normal morphology with a completely developed crown, single root and distinct from the adjacent third molar or it can differ from its normal morphology. Distomolars can erupt fully and align themselves in the dental arch or they can show partial or complete impaction [6] [7].

Supernumerary teeth may be classified according to chronology, location (topography), morphology and orientation. Chronologically, as pre-deciduous, similar to permanent teeth, post permanent or complementary. Morphologically, classified as conical, tuberculate, supplemental (eumorphic) and odontome. Topographically, classified as mesiodens, paramolar, distomolar and parapremolar. According to orientation, as vertical, inverted and transverse [4].

Distomolars are either eumorphic or dysmorphic in shape. Studies report a major percentage of distomolars in their studies molariform (tuberculated) in shape [8] [9] On the other hand, studies report that distomolars are mainly peg-and conical shaped and smaller than the maxillary third molar [10]. Arslan and his colleagues [5] reported that the distomolars they observed exhibited three different forms: a premolar shape with one root, a premolar shape with only a crown and no root, and a rudimentary conical shape. [7].

Fourth molars can be [11] [12]:

- Heteromorphic: they possess atypical morphology, also called rudimentary or dysmorphic, coneshaped (conical crown and rudimentary root) or tuberculated (crown with tubercles and single, curved root).

- Eumorphic: similar to normal teeth, they also receive the name of inculormism the following can be observed: Infundibular (funnel shaped) (with invaginations in the crown) or molariform (shaped as premolar or molar).

In some instances fourth molars fuse to third molars, and appear as a tubercle appended to its crown in the distal-lingual area, it is then called distomolar tubercle, it can even be appended to the third molar roots such fourth molars are formed and develop like any other teeth although in some instances it might not possess the same evolutionary moment as teeth in the area, they can erupt into the arch in a position very similar to that of a molar, or they can remain within the bone [13]. When fourth molars appear bilaterally in both jaws they can (or cannot) be associated to syndromes such as: cleidocranial dysplasia, Down's syndrome, Leopard's syndrome, Gardner's syndrome, Ellis Van Creveld syndrome, facial orodigo disostosis Crouson's syndrome, Hallerman Streiff syndrome, Sturge-Weber syndrome and cleft lip or palate among others. All the aforementioned syndromes exhibit in common the presence of facial cranial anomalies [12].

The treatment of distomolars teeth is still controversial – extraction or observational management. Treatment depends on the location of the supernumerary tooth and also on its potential adverse effect on adjacent hard and soft tissue structures. Extraction of a distomolar is indicated when any of the complications is present. These supernumerary teeth may be kept under observation without extraction when there are no symptoms associated with them [14] [15]. If extraction is indicated, it should be done carefully to prevent any damage (ankylosis and maleruption) to the adjacent permanent teeth, to prevent any damage to nerve and blood vessels, and to prevent fracture of the maxillary tuberosity. Sometimes distomolars may be fused with the adjacent tooth structure which may make extraction difficult [7] [8].

The prevalence of distomolars varies according to the studied population studied by various authors from different parts of the world ranging from 0.03% to 2.1% [16]. In most cases, distomolars are usually discovered incidentally during radiographic examination with no associated complications [14]. An impacted distomolar can cause complication root resorption, pain in the molar area, infection, follicular cyst and neoplasms [7]. In our case, the impacted distomolar was asymptomatic incidental finding and the patient was not having any complaint right now, it was kept as it was and informed to patient. Since there was no evidence of any effect on the neighboring teeth or any other pathology, long-term radiographic follow-up was chosen. Patient was informed regarding presence of distomolars, possible complications and treatment options were explained pertaining to the particular condition.

Conclusion:

Occurrence of supernumerary teeth is common, but presence of distomolar is rare. In the present case a very rare n unique case was presented having 3 distomolars in a single patient.

Reference:

1. Díaz A, Orozco J, Fonseca M. Multiple hyperodontia: report of a case with 17 supernumerary teeth with non-syndromic association. *Med Oral Patol Oral Cir Bucal*. 2009 May 1; 14(5):E229-31.
2. Rajab LD, Hamdan MA. Supernumerary teeth: review of the literature and a survey of 152 cases. *Int J Paediatr Dent*. 2002 Jul; 12(4):244-54.
3. Leco-Berrocal MI, Martín-Morales JF, Martínez-González JM. An observational study of the frequency of supernumerary teeth in a population of 2000 patients. *Med Oral Patol Oral Cir Bucal* 2007; 12:E134-8.
4. Shah A, Gill DS, Tredwin C, Naini FB. Diagnosis and management of supernumerary teeth. *Dent Update*. 2008 Oct; 35(8):510-2, 514-6, 519-20.
5. Gaphor SM, Abdulkareem SA, Abdullah MJ. Unilateral maxillary distomolar: A casa report and review of the literature. *Journal of Dental and Medical Sciences*. 2014;13(4):17-20
6. Cassetta M, Altieri F, Giansanti M, Di-Giorgio R, Calasso S. Morphological and topographical characteristics of posterior supernumerary molar teeth: An epidemiological study on 25,186 subjects. *Med Oral Patol Oral Cir Bucal*. 2014;19:e545-9.
7. Arandi NZ. Distomolars: An overview and 3 case reports. *Dent Oral Craniofacial Res* 2017;4(1):1-3.
8. Kurt H, Suer TB, Senel B, Avsever H. A retrospective observational study of the frequency of distomolar teeth in a population of 14.250 patient. *Cumhuriyet Dental Journal*, 2015,18(4),335-342
9. Thomas SA, Sherubin E, Pillai KS (2013) A Study on the Prevalence and Characteristics of Distomolars among 1000 Panoramic Radiographs. *J Indian Acad Ora Med Radiol*, 2013, 25, 169-172.
10. Kaya E, Gungor K, Demirel O, Ozuturk O. Prevalence and characteristics of non-syndromic distomolars: a retrospective study. *J Investig Clin Dent*, 2015, 6, 282-28.

11. Fontes da Silva H, Galvao CD, Saquete MP, de Santana ST, Santos JS. Distomolares superiores inclusos bilateralmente: relato de caso. *Odontol Clin Cient (Online)*, 2011; 10 (1), 99-101.
12. Mosquerira VMV, Meléndez MTE, Flores FH. Presence of the fourth molar. Literature review. *Revista Odontológica Mexicana*. 2018; 22(2):103-117.
13. Ferrés-Padró E, Giner L, Llopis J. Estudio de la prevalencia de quistes foliculares en dientes supernumerarios. [Tesis Doctoral]. UIC. Nov. 2008. España.
14. Ali FM, Aridhi WH, Hommadi AM, Altharawi RA, Khan MA. A Rare Case Series: Impacted Distomolars. *Open Access Maced J Med Sci*. 2019; 7(23):4078-4081.
15. Mohammad Ali Faqeeh, Fatimah Saleem Al Absi, Mariam Ali Alrefai, Fareedi Mukram Ali. A case report of bilateral impacted mandibular fourth molars. *International Journal of Contemporary Medical Research* 2017; 4(11):2306-2307.
16. Patidar DC, Patidar D. Distomolars-Exploring the known entity. *Indian J Dent Sci [serial online]* 2020 [cited 2021 Dec 13]; 12:103-8.



Fig 1. OPG showing presence of 3 distomolars in a single patient. Two bilateral mandibular horizontally impacted distomolars and one left maxillary impacted distomolar.