Incongruous Finding - A Case Report on Unilateral Distomolar

Sukanya Mohanty¹, Sania², Eshita Singhal¹, Manvi Chandra Agarwal⁴
Post Graduate Student, Kothiwal Dental College & Research Centre, Moradabad, Uttar Pradesh, India¹, ², ³
Reader, Department of Periodontics, Kothiwal Dental College & Research Centre, Moradabad, Uttar Pradesh, India⁴

Abstract:
Supernumerary teeth are defined as teeth present in addition to the normal series of deciduous or permanent dentition. They are more prevalent amongst males and are frequently observed in permanent dentition. The exact etiology is still unknown. They may occur anywhere in the oral cavity, involving a single tooth or multiple teeth, unilaterally or bilaterally, erupted or impacted, one or both jaws. It may or may not be associated with any syndromes. Ubiquitous amongst them are mesiodens. They may be classified based on chronology, location (topography), morphology and orientation. A 40-year-old otherwise healthy female patient was referred to the department of Periodontics of Kothiwal Dental College and Research Centre, Moradabad, for oral prophylaxis. Routine intraoral examination showed presence of local deposits along with mild gingival inflammation. The hallmark feature of the case was presence of supernumerary tooth distal to maxillary second molar which is a rare phenomenon. The exact etiology is unknown, hence treatment remains controversial, and the decision to remove these supernumerary teeth should be based on a risk/benefit analysis similar to that of third molars.

Keywords: Supernumerary teeth, ubiquitous, chronology.

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%.² Supernumerary molars are classified under the following heads-paramolars and distomolars. Distomolars are located distal to the third molar.³ particularly, rare is the occurrence of bilaterally distomolars, which affects only 0.07% of population.⁴ Distomolar teeth very often are not visible in intraoral examination and are detected incidentally on radiographs.³ This paper reports a case of maxillary unilateral distomolar in a 40-year-old female patient.

CASE REPORT
A 40-year-old female patient reported to Department of Periodontics of Kothiwal Dental College and Research Centre, Moradabad, for oral prophylaxis. Routine intraoral examination showed presence of local deposits along with mild gingival inflammation.

Upon thorough intra oral examination, a small fully erupted tooth was present distal to left maxillary second molar. The tooth had a vertical pattern of eruption and did not cause any damage to the surrounding soft tissues. In addition to the above mentioned findings, the patient was asymptomatic except for the feeling of mild discomfort which she experienced while mastication.

Figure-1 Showing the Position of Distomolar

Figure-2 Showing the Position of Aberrant Tooth on A Dental Cast
TREATMENT
Since patient had poor oral hygiene, oral hygiene instructions were given to the patient. This was followed by thorough scaling and root planing which was done in two sittings. Oral hygiene instructions were reinforced in each sitting. Coronoplasty was done in relation to the distal molar due to its hindrance during normal mastication.

DISCUSSION
Current data in the literature shows that supernumerary teeth are observed in 0.1% to 3.8% of the general population but this prevalence can be as high as 28% in patients with cleft palate. Incidence is higher in males. The etiology of supernumerary teeth is still uncertain. The atavism or phylogenetic theory suggested that the occurrence of supernumerary teeth is a regression to the extinct ancestral tissues or anthropoids. This theory is based on the phenomenon that ancestor mammals have more teeth with three incisors, one canine, four premolars, and three molars in each quadrant of the jaw. The teeth of common modern mammals belong to these four tooth families. It is generally thought that during evolution, the total number of teeth per dentition decreased (from polyodonty to oligodonty) and the generations of teeth were also reduced (from polyphodonty to diphodonty or monophyodonty); whereas the morphology of teeth became more complex (from homodonty to heterodonty). Over the course of evolution, the teeth in placental mammals tend to disappear in an order that is opposite to the order of their eruption. The tooth germ dichotomy theory proposed that during early tooth development, the dental lamina was divided into two parts of equal or different size, thus giving rise to two teeth with similar size, or one normal tooth and one dysmorphic tooth. Hyperactivity of the dental lamina is another widely accepted theory.

Primary dental lamina (odontogenic band) is the thickening of oral ectoderm forming during the initiation stage of deciduous teeth and it gives rise to the deciduous dentition. During the cap or bell stage of deciduous tooth development, successional dental lamina forms from the lingual or posterior aspect of deciduous tooth enamel organ. It later elongates under the oral epithelium and buds into the jaw mesenchyme forming the successional (permanent) tooth or the posterior molar teeth. Once the crown of the permanent tooth has formed, the dental lamina undergoes programmed cell death and degenerates. Residual epithelial cells of undegenerated dental lamina may cause eruption cysts, while over-proliferation or prolonged survival of those residual epithelial cells may cause supernumerary tooth formation. Heredity is also believed to be an important factor. Supernumerary teeth occur more commonly in the relatives of affected patients than in the general population.

Although there are some reports of multiple supernumerary teeth without any systemic conditions or associated syndromes, in most cases, multiple supernumerary teeth are associated with other conditions or defects such as cleft palate and cleft lip, or with variable syndromes. 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, as conical, tuberculate, supplemental (eumorphic) and odontome; topographically as mesiodens, paramolar, distomolar and parapremolar; according to orientation, as vertical, inverted and transverse.

The most common supernumerary teeth, listed in order of frequency, are the maxillary midline supernumeraries (mesiodens), maxillary fourth molars, maxillary paramolars, mandibular premolars, maxillary lateral incisors, mandibular fourth molars, and maxillary premolars. The most frequent location is in the maxilla, the anterior medial region (mesiodens), where 80% of all supernumerary teeth are found. More rarely, they can be located in the superior distomolar zone, inferior premolar, superior premolar, inferior distomolar, superior canine zone, and inferior incisor.

The clinical complications of supernumerary teeth include root anomaly, malocclusion, root resorption, displacement or rotation, failure of eruption or delayed eruption of adjacent tooth, cyst formation, and pulp necrosis with loss of vitality and esthetic disturbances. Definitive management of patients with supernumerary teeth remains controversial in terms of whether to remove such teeth or to monitor them. Their interpretation should always be conducted in conjunction with clinical findings. Treatment depends on the type and location of the supernumerary teeth and on its potential effect on adjacent hard and soft tissue structures.

REFERENCES


