

Management of impacted distomolar Penatalaksanaan impaksi distomolar

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ABSTRACT

Supernumerary teeth are additional teeth found on the incisors and molars. A distomolar supernumerary tooth usually manifests as a fourth molar tooth distal to the third molar. Distomolar can cause complications such as delayed eruption, dental caries at the distal third molar, and sometimes pain. In this article, a case of distal third molar extraction dealing with complications, especially pain, is reviewed. A 28-year-old male patient presented with pain in a distally impacted RB left third molar. The affected tooth and supernumerary tooth were surgically extracted. It was concluded that surgical extraction of distally impacted molars had a positive effect of pain reduction.

Keywords: impacted tooth, distomolar, tooth extraction, pain

ABSTRAK

Gigi supernumerari adalah gigi tambahan yang terdapat pada gigi insisivus dan molar. Gigi supernumerari distomolar biasanya bermanifestasi sebagai gigi molar keempat yang berada di sebelah distal gigi molar ketiga. Distomolar dapat menyebabkan komplikasi seperti erupsi yang tertunda, karies gigi pada distal gigi molar ketiga, dan kadang-kadang rasa sakit. Pada artikel ini dikaji sebuah kasus pencabutan gigi molar tiga distal yang berhadapan dengan komplikasi, terutama rasa sakit. Seorang pasien pria berusia 28 tahun dengan nyeri pada gigi molar ketiga kiri RB yang impaksi distal. Gigi yang terdampak dan gigi supernumerari telah dicabut melalui pembedahan. Disimpulkan bahwa pencabutan gigi geraham impaksi distal dengan pembedahan memiliki efek positif yaitu pengurangan rasa sakit.

Kata kunci: gigi impaksi, distomolar, pencabutan gigi, nyeri

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INTRODUCTION

The term supernumerary tooth refers to any extra tooth or odontogenic structure that arises on normal dentition. There are numerous hypotheses on the genesis of supernumerary teeth. The occurrence of supernumerary teeth is generally attributed to a mix of environmental and genetic causes.¹ However, Brook suggested a connection between genetic and environmental factors.² Various explanations explain the origin of supernumerary teeth of varying forms. According to Liu, the dichotomy of the tooth bud is the cause of supernumerary teeth. The hyperactivity theory explain that supernumerary teeth develop from the independent and conditioned hyperactivity of the dental lamina.³

In different populations, the prevalence of supernumerary permanent teeth ranges 0.5-5.3%, while the frequency of supernumerary deciduous teeth is 0.2-0.8%. Asians are more likely to have supernumerary teeth than other populations. In countries between the Caspian Sea and the Black Sea, the prevalence of hyperdontia ranges 0.1-3.8%, whereas in Arab and East Asian countries, the prevalence is higher (0.4-3.8%).¹ Males are more susceptible than females, as the prevalence ranges 0.15-1.9%.⁴

Supernumerary teeth can result in developmental anomalies, ectopic growth, displacement, crowding, di-

astema, odontogenic cyst formation, decay of the next tooth, malocclusion, and aesthetic issues.¹ A supernumerary tooth is categorized topographically as a mesiodens, paralateral, paramolar, distomolar, or parapremolar, and orientationally as vertical, inverted, or transverse. According to Alberti et al., the most prevalent type of supernumerary tooth is the mesiodens.⁴ Supernumerary teeth in the region of the molars are relatively uncommon. In addition, only a handful of cases have been described of bilateral molar area supernumerary teeth.⁵

Unerupted and impacted supernumerary teeth are frequently discovered during routine radiography exams. For a reliable evaluation of the prognosis and the correct therapeutic approach, which must be implemented individually for each instance, the suitable imaging technique is extremely necessary.⁶

This article describes a case of unilateral mandibular distomolar with no others symptoms. There have been few reported cases of mandibular distomolar. In addition, the prevalence, tooth anatomy and morphology, imaging technology, comorbidities, and potential therapeutic methods for distomolar cases are reviewed.

CASE

About a week ago, a 28-year-old male presented to the Department of Oral and Maxillofacial Surgery, Un-

has Dental Hospital Makassar, complaining of pain in the left posterior region. There was no previous trauma. A left maxillary third molar was partially erupted, surrounded by erythematous gingiva, and had a composite restoration on the occlusal surface, as determined by clinical examination (Fig. 1A). Periapical radiograph of patient 38 indicated the presence of a tooth-like object distal to the impacted tooth (Fig. B). The crown of the supernumerary tooth is slightly inclined toward the third impacted molar.

MANAGEMENT

Treatment approach involved the extraction of a supernumerary tooth connected with tooth 38, as well as the odontectomy of tooth 38 under local anesthesia. The area was sutured, and antibiotics and analgesics were provided (Fig. 1C,D). One week following surgery, sutures were removed and the extraction site had healed (Fig. 1E).

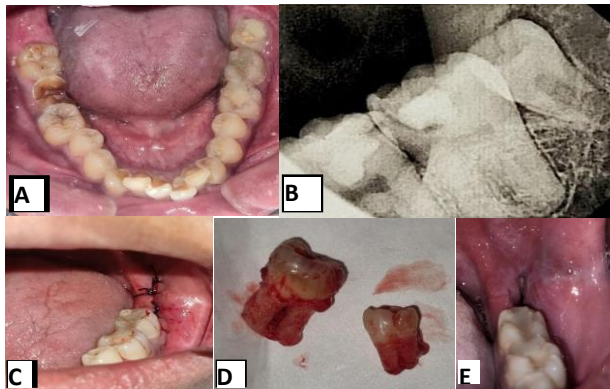


Figure 1A Mandibular arch; B periapical radiograph; C sutured socket; D surgically extracted third molar and distomolar; E healed socket after a week

DISCUSSION

The presence of supernumerary teeth can occur unilaterally or bilaterally in upper and lower jaw. Due to their distal or posterior position relative to third molars, distomolars are also known as distomolars and retromolars.⁷ The incidence of the fourth molar ranges 0.02-0.16%, with 1.15% prevalence in the upper jaw and 0.02% prevalence in the lower jaw.

The shape of supernumerary teeth might resemble that of normal teeth or be extremely different; they are classified as follows: conical type, tuberculate type, extra teeth, and odontomas.⁵ This distomolar's morphology and size are identical to that of a normal tooth.⁷ The structure is located in the retromolar area of the jaw. The shape of this structure permits the determination of longitudinal and transverse axes and the separation of the crown and root regions. The crown portion of these teeth lacks the enhanced radiopacity results typical of the enamel region, or the enamel region in the tooth is extremely thin.⁸ The crown form

is similar to that of premolars and canines. The anatomical structure and morphology of the distomolar teeth in this case study are identical to the anatomy of premolar teeth.

One of the factors that influencing management is the position and structural interaction of the supernumerary tooth with the adjacent teeth. Despite the fact that intraoral radiographs provide a preliminary evaluation, newer imaging modalities such as CBCT provide a more precise positioning and spatial relationship of the structure.⁴ During radiographic examinations, the diagnosis of distomolar patients is frequently made by chance. Patients will not typically have concerns if the tooth is hidden. It is possible for supernumerary teeth to emerge properly or become impacted in the jaws. They may be in heterotopic positions or exhibit anomalous eruptive patterns.⁹ In this case report, the impacted distomolar was discovered when periapical radiography was used to examine the patient.

Supernumerary teeth in the permanent dentition are frequently associated with dental abnormalities, such as odontoloxia, impaction, and twisted permanent teeth adjacent to the supernumerary teeth, delayed eruption, ectopic eruption, crowding, periapical resorption of permanent teeth, and follicular cyst formation.⁵

In this case report, the patient had a distomolar in the distal position of tooth 38 that was impacted, along with a severe complaint of pain. The crown of fourth molar crown was discovered mesially inclined to impacted tooth 38, with the apical of these teeth overlaid with mandibular canal. The treatment of supernumerary teeth depends on the type and position of the tooth. Under the following circumstances, immediate removal of the mesiodens is often advised: inhibition or delay of eruption, displacement of the adjacent tooth, trouble with orthodontic equipment, presence of a pathologic disease, or spontaneous eruption of the supernumerary tooth. *The sooner the mesiodens is removed, the better the prognosis*, as indicated by Munns.⁴

Different treatment plan for supernumerary teeth are available for patients with multiple hyperdontia that is not accompanied with severe disorders. If the teeth are asymptomatic, with no radiographic indications of diseases, and are not likely to obstruct orthodontic tooth movement (location beyond dental apices), they can be followed with periodic radiological evaluation. However, if the patient does not want to risk consequences, extraction may be considered. If connected with permanent tooth roots, root injury should be avoided by waiting until root development is complete. In circumstances when supernumerary teeth are associated with difficulties, extraction is the appropriate course of action.¹⁰ In this case, the impacted tooth 38 and the distal molar were surgically extract-

ed. The goal of this treatment was to alleviate the patient's primary complaint of pain. There were no complication after therapy, and the socket was healed within a week.

It is concluded that the distomolar is an uncommon

supernumerary tooth. This tooth is discovered during a regular examination of the third impacted molar. Distomolar teeth have a similar shape and morphology to premolar. Procedures are performed in accordance with treatment plan or in the absence of patient complaints.

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