



SUPERNUMERARY TOOTH: report of a rare case of a fourth mandibular molar

Dentes supranumerários: um caso raro de quarto molar mandibular

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Abstract

OBJECTIVES: To present a rare case of mandibular fourth molar. **METHOD:** Brief review of the literature; presentation of the clinical data of the patient and images of the case. **DISCUSSION:** Supernumerary fourth molars are rare anomalies of the maxillofacial complex that are more common in the maxilla than in the mandible. This article reports a case of an impacted rudimentary type of supernumerary fourth molar in the mandibular arch.

Keywords: Supra numerary teeth. Fourth molar. Mandible.

Resumo

OBJETIVOS: Apresentar um caso raro de quarto molar mandibular. **MÉTODO:** Sucinta revisão da literatura e apresentação dos dados clínicos do paciente e imagem do caso. **DISCUSSÃO:** quartos molares supranumerários são anomalias de número mais comum na maxila. Este artigo relata um caso de quarto molar de formato rudimentar, situado na mandíbula.

Palavras-chave: Dentes supranumerários. Quarto molar. Mandíbula.

INTRODUCTION

Tochichara (1) reported that the more frequent supernumerary molars are the maxillary fourth molars. Fourth molars beside molar area are called *paramolar* teeth (2, 3); more specifically, those that erupt distally to the third molar are called *distomolar* (2). Stafne (3) reported that approximately 90% of all supernumerary teeth in his study occurred in the maxilla and that half of these were found in the anterior region (incisives). Those in the molar region accounted for 38.9% of supernumerary teeth, but the mandibular supernumerary molars were rare, (only 2% of his sample). Although several cases of mandibular supernumerary molars have been previously reported, most were located in the distal end of the dentition (fourth "molars" or "distomolars" (4). Most of the distomolars found in the mandible were morphologically normal (5). Fourth molars are more common in blacks than in white populations (6). A rare case of unilateral supernumerary tooth in the region of mandibular 3rd molar is presented.

CASE REPORT

A 28 year old male patient, who was otherwise in a good health, was referred to Peramerd Dental Specialty Center, Department of Oral and Maxillofacial Surgery, Sulaimany, Iraq, in March 2009 by his family dentist with a complaint of pain in the region of the right mandibular angle. There was no relevant family history of dental abnormalities.

X-ray findings

Panoramic radiograph revealed the presence of an impacted right mandibular third molar and a small fourth molar distally located. Both the third and the fourth molars presented a radiolucent, well circumscribed image over the crowns, suggesting a dentigerous cyst. The left third molar was vertically impacted. Both maxillary third molars were vertically impacted (Figure 1).

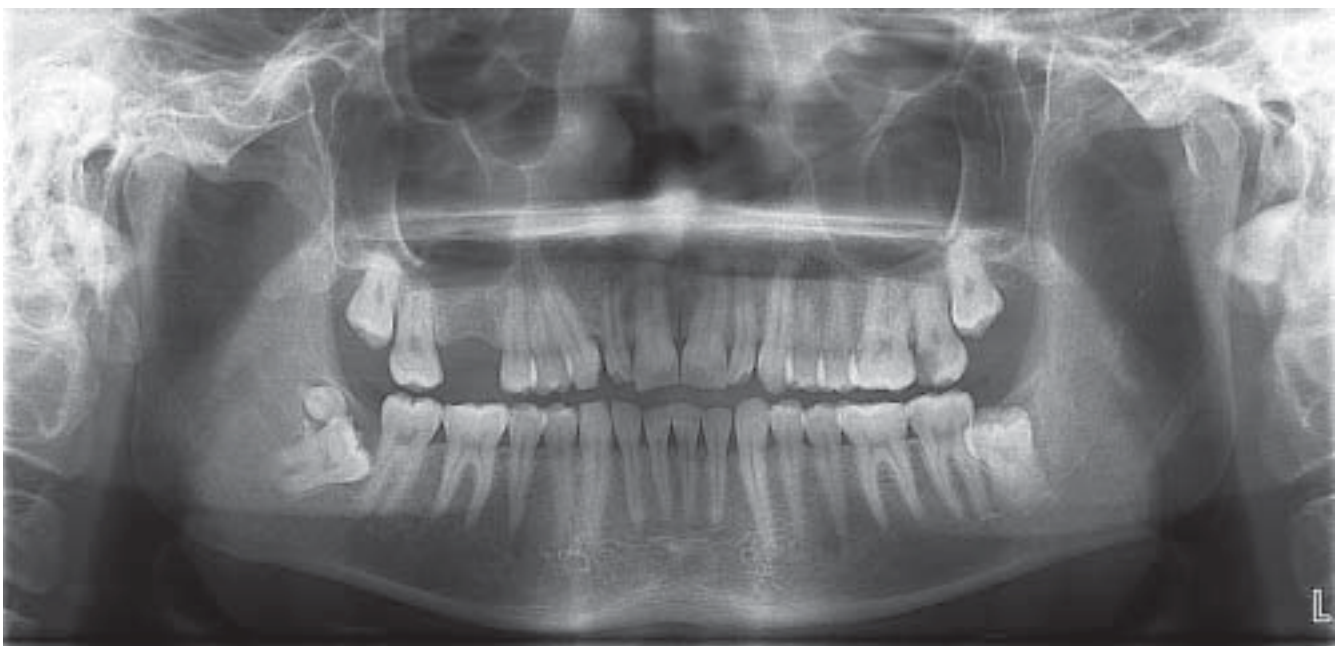


FIGURE 1 - Panoramic radiograph showing the impacted right mandibular third molar and the fourth molar

The final diagnosis was impacted third molar, presence of a fourth molar and acute infection/inflammation of the pericorony cyst. Both the third and fourth right mandibular molars were extracted, under local anesthesia.

DISCUSSION

The prevalence of supernumerary molars is reported as 1% by Stafne (3), as 2% by Luten (7) and as 1.9% by Backmann (8). It is reported in the literature that fourth, fifth, sixth, and seventh molars were seen (9-11). However, fourth molars are seen much more frequently (1). Stafne (3) reports most of the upper fourth molars are blunt, multicuspid, and much smaller than the third molars. Although the literature indicates that maxillary supernumerary molars are not uncommon in adults, supernumerary molars in mandibles are rare. Furthermore, supernumerary molars are extremely rare in young patients, especially in the mandible (12).

Many hypotheses concerning the cause of supernumerary teeth have been suggested, but their occurrence has not yet been fully clarified. It has been suggested that supernumerary teeth result from atavism or reversion. Aberrations during embryological formation may cause supernumerary teeth formation and it is believed that supernumerary teeth arise from local, independently conditioned hyperactivity of dental lamina or remnants of dental lamina (13, 14).

It is also possible that supernumerary teeth may result from division of a developing tooth bud (dichotomy); there are a number of factors that might split a normal tooth germ and give rise to the development of multiple individual teeth (4, 15).

Heredity is an important factor in the occurrence of supernumerary teeth. Supernumerary teeth occasionally occur within the same family (16, 17). Supernumerary teeth can have normal morphology and are referred to as "supplementary teeth". On the other hand, supernumerary teeth may be rudimentary in shape and smaller in size (18).

Supernumerary teeth are more often found in males than females (18). Goaz and White (2) say that it occurs twice as often in males. Timocin et al (12) concluded that males are much more affected than females. Yusuf (9) stated a 9:2 male-female ratio in the occurrence of supernumerary teeth, while Liu (13) claims a 3:1 ratio. El Nassry (5) reported 300 cases of hyperdontia indicated a predominancy in males at 83%.

Supernumerary molars are found more frequently in the maxilla than in the mandible. Grimanis (4) reported supernumerary molars are found with a percentage of 79% in the maxilla. Menardia et al. (19) stated this percentage is 86.8%, Spauge (20) 91%, while Stafne (3) reported it as

88.9%. Casetta (21) claims the incidence of supernumerary molars among all supernumerary teeth found in the maxilla is 75%.

Supernumerary teeth might cause dental abnormalities such as delayed eruption or impaction of permanent teeth, malposition of supernumerary teeth or displacement of adjacent teeth. Such eruption disturbances can be prevented by early diagnosis and appropriate treatment. To determine an appropriate treatment plan for supernumerary teeth, it is important to evaluate their exact position and the moment at which the teeth might cause various disturbances (22). In the present case the supernumerary tooth contributed to disturb the eruption of the 3rd molar.

CONCLUSION

The occurrence of fourth molar in the mandibular arch is an uncommon phenomenon, often undetected in routine dental examinations, particularly when situated distally to the second molar.

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