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Supernumerary Maxillary and Mandibular
Fourth Molars

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The opinions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the Department of the Army or the Department of the Defense.

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ABSTRACT

Five cases of patients having supernumerary teeth in the distomolar regions of the mandibular and maxillary arches are reported. Supernumerary bicuspid were also seen in three of the five cases. The patients complained of pericoronitis or had no symptoms. Medical history in all five cases was noncontributory.

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Supernumerary Maxillary and Mandibular Fourth Molars

The incidence of supernumerary teeth has been described as approximately one supernumerary tooth per 100 persons.¹ Shafer and others² reported that 90% of all supernumerary teeth occur in the maxilla, mesiodentes being the most common. Other areas, in the order of frequency, are molars (fourth), lateral incisors, premolars and cuspids. In the mandibular arch, the premolar area is the most common site for supernumerary teeth followed by the molar (fourth) and central incisor area, and cuspid region.³

Numerous theories have been reported in the literature explaining the etiology of supernumerary teeth. Smith,⁴ Orban⁵ and Stafne¹ discussed various possibilities, but the exact phenomenon has never been substantiated, experimentally or histologically. Pindborg⁶ supported dichotomy theory experimentally and Sponge⁷ terms this as vertical proliferation.

The five cases of supernumerary teeth described in this paper illustrate the presence of fourth molar teeth distal to the last molars, both in the maxillary and mandibular arches.

Case I. Twenty-one-year-old male, entering the dental clinic for routine dental examination, mentioned slight discomfort in the area of the third molars. Intraorally, moderate pericoronitis of the third molars was present and this was diagnosed as the cause of the patient's discomfort.

Panoramic radiograph (Fig I) revealed maxillary fourth molars and mandibular right and left supernumerary bicuspid. These additional teeth were asymptomatic and the patient's medical history was noncontributory.

Case II. A 20-year-old black male was seen in the clinic for treatment of pain which was originating from a deep carious lesion in the mandibular left second molar. A routine panoramic radiograph (Fig II) revealed the presence of impacted fourth maxillary molars and bicuspid. In the mandibular arch, an incompletely formed impacted left fourth molar and right bicuspid were also noted.

Case III. A 24-year-old male was seen in the clinic for treatment of occasional pain on the right side of the mandible. Intraorally, the mandibular right third molar area was seen to be inflamed. A panoramic radiograph (Fig III) showed maxillary fourth molars and mandibular right fourth molar horizontally impacted against the third molar. Supernumerary, mandibular right and left bicuspid were also noted. Patient's medical history was noncontributory.

Case IV. A 24-year-old male came in the clinic for treatment of oral pain. Intraorally, all the third molar areas were seen to be inflamed and tender to touch. A panoramic radiograph (Fig IV) revealed impacted third molars and presence of four fourth molars. Mandibular left fourth molar was seen to be geminated with third molar.

Case V. A 22-year-old male sought treatment for pain which was well localized to the both sides in the mandibular third molar area. Intraorally, both teeth were partially erupted. There was severe pericoronal inflammation. Routine panoramic radiograph (Fig V) showed both impacted fourth molars and third mandibular molars. Root formation appeared to be completed for both normal and the supernumerary teeth.

Discussion:

Schulze described, clinically and anatomically, three types of supernumerary teeth.⁸ In a study comparing incidence of polygenesis versus agenesis in the higher primates and man, hyperdontia has higher incidence in earlier primates than in man.

Hyperdontia has occasionally been associated with clefts of the lip and palate,¹⁰ cleidocranial dysostosis,² Gardner's Syndrome,² oculomandibulodyscephaly¹¹ and orodigital facial syndrome.⁶ Familial predisposition to hyperdontia has also been shown.¹²

All five of the presently described cases of fourth molars were more or less incidental radiographic findings and there was no apparent systemic disease in five cases reported. Author points out the overwhelming value of the panoramic X-ray as a tool in general exclusion and diagnosis.

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- Fig 1 Impacted supernumerary maxillary fourth molars
 and mandibular bicuspid.
- Fig 2 Impacted maxillary fourth molars and super-
 numerary bicuspid.
- Fig 3 Maxillary fourth molars and mandibular right
 fourth molar and supernumerary impacted
 bicuspid.
- Fig 4 Maxillary and mandibular fourth molars.
 Mandibular left third molar seems geminated.
- Fig 5 Maxillary and mandibular supernumerary fourth
 molars.

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