

Supernumerary impactions of the mandibular cuspids and bicuspid. Case report

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Abstract

A case involving the presence of supernumerary cuspids and bicuspid is described. The condition was probably an inherited one because of the family history and the bilateral incidence. The supernumerary teeth erupted because of alveolar resorption in which inflammatory factors probably played a role. Radiographic follow-up of the site of supernumerary impacted teeth and alveolar resorption should be undertaken.

Key words: Bicuspid, cuspid, impacted teeth, supernumerary teeth.

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Fig. 1.—Intraoral view of the partly erupted teeth.

Case report

A 68-year-old woman was referred to the Matsumoto Dental College Hospital complaining of pain associated with eating. She mentioned that she had had a complete normal dentition but had lost all of her teeth five years previously and was wearing complete dentures. The patient had become aware of hard whitish masses on the alveolar ridge of the canine regions of the mandible on both sides.

There was no relevant medical history. However, her son had a history of supernumerary impacted teeth. On examination, bilateral swellings were observed in the canine regions around some tooth-like substance which was partly erupted and had a normal tooth colour with no evidence of decay (Fig. 1). The lesions were tender to pressure, and, on probing, exhibited pocketing to a depth of 3 mm. Regional lymph nodes were not affected.

Radiographs showed the presence of seven teeth on the left side and five teeth on the right side. Eight of these twelve teeth had not erupted. Each tooth was displaced horizontally or inversely impacted (Fig. 2). Physical examination revealed no anomalies or skeletal abnormalities. Blood examination was within normal limits.



Fig. 2.—Panoramic radiograph showing impacted supernumerary teeth in the mandible on both sides.

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Fig. 3. – Normally formed cuspids and bicuspid. Nine of twelve teeth are shown. Three entire teeth located in deep positions were sectioned into three or four portions before removal. No denticles or rudimentary teeth were found.

Under endotracheal general anaesthesia, the supernumerary teeth were removed. They were grossly displaced and inverted. The supernumerary teeth located in the deepest portion in the mandible on the left side had significantly curved roots in close relationship to the inferior alveolar canal, which necessitated careful exploration and removal. The teeth exhibited sufficient anatomic similarity to regular canines and premolars and, hence, were considered to be accessory teeth (Fig. 3). Bone resorption had occurred around the unerupted teeth.

Discussion

Routine treatment for supernumerary teeth is their removal when patients have any symptoms or indications of pathological changes, or if removal is considered to be essential for orthodontic treatment. Removal should be carried out as early as possible to avoid tooth malpositioning, diastemas, root resorption, and impeded eruption of permanent teeth. Often no treatment is required for unerupted and asymptomatic impacted teeth that are embedded deeply in bone and do not cause any problem. From the results of a follow-up study, Huang and Mercier¹ reported that the removal of asymptomatic impacted teeth in denture-bearing areas or in areas undergoing pre-

prosthetic surgery is unnecessary as long as the integrity of the covering tissue is preserved.

Alveolar ridge resorption is due to local factors such as mechanical forces associated with denture occlusal trauma and systemic factors; for instance nutritional and hormonal imbalance and metabolic bone disease factors.² It is difficult to anticipate the extent of physiological tooth eruption and migration in the earlier years of life or subsequent alveolar bone resorption. Supernumerary teeth may be implicated in inflammatory processes due to their location, and such inflammation may have accelerated the resorption of the alveolar bone in the present case. A long-term follow-up may help future anticipation of the eruption of impacted teeth due to alveolar resorption.

A reappraisal of the routine removal of impacted third molars was reported by Stanley *et al.*,³ and Rood and Shehab⁴ showed that radiological signs could predict impaired lip sensation following third molar surgery, for instance, diversion of the inferior alveolar canal, darkening of the root and interception of the white line. Pre-operative radiographs can assist in defining the form and location of supernumerary impacted teeth and their proximity to the inferior alveolar nerve. This distance should be estimated to allow for the successful removal not only of impacted mandibular third molar teeth, but also impacted supernumerary teeth which may be located in the mental foramen region.

References

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