Four erupted supernumerary teeth around the maxillary second molar

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DESCRIPTION

Multiple supernumerary teeth are rare in non-syndromic patients¹ and are mainly impacted.² A 26-year-old man presented with four supernumerary teeth around the left maxillary second molar. He was referred to our clinic to remove the left maxillary third molar and four supernumerary teeth because of the bite in the buccal mucosa. He had no significant medical history, except for hay fever, or congenital deformities. Two maxillary central impacted supernumerary teeth were removed at 11 years of age. He had no family history of supernumerary teeth, congenital deformity, or colorectal tumours. However, his younger brother had a congenitally missing tooth. In the intraoral examination, four supernumerary teeth around the left maxillary were noted: one supernumerary tooth on the palate side and three supernumerary teeth on the buccal side (figure 1A). The panoramic radiograph showed no residual deciduous teeth and congenital loss of the permanent teeth. Cone-beam CT showed four supernumerary

teeth around the left maxillary second molar, and these teeth were single-rooted and thinly curved (figure 1B). All supernumerary teeth and the left maxillary third molar were removed under local anaesthesia. All supernumerary teeth showed microdontia with single roots. Each crown form was different. Conical crowns, incisor-like crowns and crowns with 2 and 4 cusps were noted. The length and width of the supernumerary teeth were 9–13 and 3–5 mm, respectively (figure 1C).

The prevalence of supernumerary teeth is approximately 1% and that of the maxillary central impacted supernumerary tooth is approximately 50%, with the occurrence in one or two teeth.³ Multiple supernumerary teeth with four or more teeth occur in cleidocranial dysplasia and Gardner syndrome.^{4 5} Multiple supernumerary teeth are rare in patients without the syndrome.¹ Reportedly, 25% of supernumerary teeth erupt, while 75% are impacted.⁶ In this case, four multiple supernumerary teeth erupted, and these were around one tooth. Although the mechanism of occurrence of the supernumerary teeth is unclear, the phylogenetic theory, tooth germ dichotomy theory, and dental lamina hyperactivity theory have been advocated.^{7 8} In this case, the dental lamina hyperactivity theory was considered because there was no fusion with the second or third molars, and the developmental time was independent.

Figure 1 (A) Intraoral photograph (mirror image) showing four supernumerary teeth around the left maxillary second molar. (B) Three-dimensional cone-beam CT showing four supernumerary teeth around the left maxillary second molar. (C) A photograph showing four extracted supernumerary teeth. 4 indicates the supernumerary tooth on the palatal side of the left maxillary second molar. 1–3 indicate supernumerary teeth on the buccal side of the left maxillary second molar. 1 is the suspected cause of root fracture.

Learning points

- ▶ Multiple supernumerary teeth with four or more teeth occur in cleidocranial dysplasia and Gardner syndrome.
- ▶ Multiple supernumerary teeth are rare in non-syndromic patients and are mainly impacted.

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REFERENCES

- 1 Açıkgöz A, Açıkgöz G, Tunga U, *et al.* Characteristics and prevalence of non-syndrome multiple supernumerary teeth: a retrospective study. *Dentomaxillofac Radiol* 2006;35:185–90.
- 2 Nazif MM, Ruffalo RC, Zullo T. Impacted supernumerary teeth: a survey of 50 cases. *J Am Dent Assoc* 1983;106:201–4.
- 3 Stafne EC. Supernumerary teeth. *Dental Cosmos* 1932;74:653–9.
- 4 Takahashi K, Togo Y, Saito K, *et al.* Two non-syndromes cases of multiple supernumerary teeth with different characteristics and a review of the literature. *J Oral Maxillofacial Surgery* 2016;28:250–4.
- 5 Shimizu T, Shimizu Y, Miyamoto M, *et al.* Four supernumerary molars in one maxillary quadrant: a case report. *Pediatric Dental Journal* 2012;22:198–201.
- 6 Hattab FN, Yassin OM, Rawashdeh MA. Supernumerary teeth: report of three cases and review of the literature. *ASDC J Dent Child* 1994;61:382–93.
- 7 Rallan M, Rallan NS, Goswami M, *et al.* Surgical management of multiple supernumerary teeth and an impacted maxillary permanent central incisor. *BMJ Case Rep* 2013;2013:bcr2013009995.
- 8 Moss ML. Phylogeny and comparative anatomy of oral ectodermal-ectomesenchymal inductive interactions. *J Dent Res* 1969;48:732–7.

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