Triple Teeth: Case Report of an Unusual Fusion of Three Teeth

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ABSTRACT

An unusual case of fusion between primary central incisors, lateral incisors, and a supernumerary tooth is reported. The fusion was at the enamel and cementum only, and the tooth was extracted. (*J Dent Child.* 2004;71:206-208)

KEYWORDS: FUSION

A nomalies of the primary dentition occur in morphology or number of teeth. Shafer, Hine, and Levy¹ classify conjoined, double, or triple teeth into those resulting from:

- 1. Fusion—the embryonic union of normally discrete dental organs. It can be complete or incomplete, depending on the dental organs' stage of development at the time of the union.
- 2. Gemination—the formation of the equivalent of 2 teeth from the same dental follicle, with evidence of a tooth's attempt to be completely separate. Usually 1 pulp chamber and 1 root canal are present.
- 3. Concrescence—a form of fusion that occurs after crown completion and teeth are united by cementum only.

Supernumerary teeth develop as a consequence of the proliferation of epithelial cells from dental lamina.² Incidence ranges from 0.5% to 3.8% and is more common in males.² Supernumerary teeth are seen most commonly in the anterior region, and the most common type is the mesiodens, which is conical in shape.³

Fusion tends to occur more in the primary dentition. Reports suggest predilection of fusion in the mouth's anterior area.⁴ Fusion's basic etiology is not known, but various reasons mentioned include hereditary tendency, ectodermal dysplasia, Down syndrome, local factors like physical pressure, and genetic factors.

An unusual case of the fusion of 3 teeth is reported involving 1 supernumerary and 2 deciduous teeth.

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CASE REPORT

A 6-year-old boy reported to the Department of Pedodontics and Preventive Dentistry, Bapuji Dental College and Hospital, Davangere, Karnataka, India, with a complaint of swelling in the maxillary anterior region.

Examination revealed a full primary dentition and permanent first molars erupting. A supernumerary tooth was present next to the maxillary right deciduous central and lateral incisors, and all 3 teeth were fused to each other (Figure 1). A swelling measuring 1×1 cm was noted on the labial aspect in relation to the fused teeth. The fused teeth showed abnormal mobility and were previously restored. There were no other lesions, and the patient's oral hygiene was good.

An intraoral periapical radiograph of the fused teeth revealed periapical changes and confirmed fusion of the 3 teeth, although the root canals were not very distinct (Figure 2). Based on the prognosis of teeth and the patient's age, the 3 fused teeth were extracted (Figure 3).

Histological section confirmed fusion at the enamel only in the crown and at the cementum only in the root (Figure 4). The patient was recalled for subsequent visits, and a removable functional space maintainer was fabricated for esthetic reasons.

DISCUSSION

Bennett⁵ was the first to describe a case of 3 fused teeth. Since then, not many cases have been reported. Triple fusion is seldom encountered, and fusion of enamel, as reported in this case, is also very rare.⁶

It is important to distinguish between fusion and gemination. According to Shafer¹ and Bhaskar and Grossman,⁷ there is only 1 pulp chamber and 1 root canal in geminated teeth. In fused teeth, however, separate pulp chambers and root canals are typically seen, as reported in this case. Therefore, this can be considered a case of fusion.

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Figure 1. Clinical presentation of the patient with fused teeth.



Figure 2. Intraoral radiograph.

Since the fusion of the 3 teeth is at the enamel in the crown and the cementum in the roots, fusion probably occurred when the crown was nearing the stage of completion, but the root formation was still not complete.

CONCLUSIONS

A rare case of the fusion of 3 teeth was reported, with the fusion at enamel and cementum only.



Figure 3. Extracted fused teeth.



Figure 4. Histological section of the fused teeth under low power.

REFERENCES

- Shafer WG, Hine MK, Levy BM. A Textbook of Oral Pathology. 3rd ed. Philadelphia: WB Saunders; 1974:37-46.
- Luten JR. Prevalence of supernumerary teeth in primary and mixed dentition. J Dent Child 1967; 34:346-353.

- 3. Hattab FN, Yassin OM, Ravashdeh MA. Supernumerary teeth: Report of 3 cases and review of literature. J Dent Child 1994;61:382-393.
- 4. Buenviagi TM, Rapp R. Dental anomalies in childrena clinical and radiographic survey. J Dent Child 1984;51:42-46.
- 5. Dhooria HS, Badhe AG. An unusual fusion of 3 teeth—case report. J Indian Dent Assoc 1983;55:327-328.
- 6. Pindborg JJ. Pathology of dental hard tissues: Munskagaard, Copenhagen: Scandinavian University Books; 1970.
- 7. Grossman KE. Endodontics involving an unusual case of fusion. J Endod 1980;7:40-41.

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