Fusion of permanent maxillary right central incisor and mesiodens in an 8-year-old child

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DESCRIPTION

Fusion of the teeth is a developmental anomaly that may occur due to joining of the two separated tooth germs. It may be complete or incomplete based on which stage of development the fusion occurred. Physical forces or pressure may cause fusion. It can be seen between the two primary teeth or permanent teeth or between normal and supernumerary teeth, commonly mesiodens.¹

In this case, an 8-year-old boy presented with a 'large tooth' in the upper front region of his jaw. Traumatic or familial history did not reveal anything. On complete intraoral examination, it was found that the permanent maxillary right central incisor was larger mesiodistally than the left one, which can signify the possibility of fusion between central incisor and mesiodens (figure 1). The boy also had proximal caries with 53, 63, 74, 75 and 84, and deep

occlusal caries with 85. Thus, instead of intraoral periapical radiographs, an orthopantomogram was advised to check the extent of caries in all four quadrants as well as to evaluate the root status of the fused teeth. The extraoral radiograph revealed that the fused teeth had an underdeveloped single large root with a single large root canal (figure 2).

It is often difficult or impossible to differentiate between fusion and gemination clinically or radiographically when normal and supernumerary teeth are involved.² The treatment for such a condition is multidisciplinary, involving endodontics, periodontics and orthodontics to achieve good results.³

Learning points

- ▶ An orthopantomogram or intraoral periapical radiograph is often required to evaluate the root status of fused teeth.
- ▶ Differential diagnosis of fusion and gemination is difficult when normal and supernumerary teeth are involved.
- ▶ A multidisciplinary approach is required to treat such a condition.

Figure 1 Intra oral photograph showing fusion of the permanent maxillary central incisor and mesiodens.

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Competing interests None.

Patient consent Obtained.

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Figure 2 Orthopantomogram of an 8-year-old child showing single large root and root canal of fused teeth in maxillary arch.

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