Title: Fused teeth; three-dimensional representation of the external and internal structure

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Fusion (synodontia or false germination) is defined as the union of two or more separately developing tooth germs at the dentinal level when the crown is not yet mineralized to yield a single, large tooth during odontogenesis. The incidence of fusion reported 0.1% in the permanent dentition. (A) The figure depicts a fused maxillary molar of a 56-year old male patient imaged with the aid of micro-computerized tomography. (B) Three-dimensional representations of the root canals. Fused teeth can cause various problems, such as caries, periodontal disease, abnormal eruption, impaction and ectopic eruption of an adjacent teeth. Thus, many different approaches of fused teeth have been suggested because of the endodontic, esthetic, orthodontic, periodontal and functional problems. In particular, endodontic therapy of these teeth requires appropriate attention and careful management because of their unusual anatomy, the abnormal morphology of the crown, and the complexity of the associated root canal system as shown in figure.

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