The Twin Teeth - A Case of Gemination

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Clinical Image
A 14-year-old medically fit female patient came to our department with a chief complaint of forwardly placed upper teeth. On clinical examination the two maxillary central incisors were abnormally large in size with presence of a notch on the incisal edge clearly suggestive of gemination over fusion (Figure 1). Moreover, the lateral incisors and canines were present making a diagnosis of gemination all the more conclusive. A radiograph further confirmed that it was a case of true gemination as the cleavage was a bare minimum. The patient was sent to the department of pedodontics for further evaluation and required treatment to improve aesthetics.

Gemination, Twinning or Schizodontism is a developmental anomaly affecting the tooth shape which is often confused with fusion or macrodontia. Although environmental factors such as trauma, vitamin deficiencies, systemic diseases and certain genetic predisposition have been suggested as possible causes, the exact cause of gemination is unknown. Grover & Lorton claim that local metabolic interferences, which occur during morpho-differentiation of the tooth germ, may be the cause [1]. In spite of considerable number of cases reported in the literature, the differential diagnosis between fusion and gemination remains a challenge. A review of literature suggests gemination is more prevalent in the anterior maxillary region, whereas fusion is more commonly found in the anterior mandibular dentition which supports our case [2]. A suggested scheme of classification widely followed is as: Gemination (cleavage of a single tooth germ) - partial cleavage (true-gemination); complete cleavage (twinning) clearly suggesting that our case falls under the category of true gemination [3].

References