

Maxillary central incisor with two canals in one configuration: A case report (Dens in dente)

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The success of endodontic treatment requires knowledge of tooth morphology and its variations. This clinical case reports unusual root canal morphology that was detected in the maxillary central incisor with two canals in one configuration. Dental anomaly (dens in dente) is also referred to as dens invaginatus, a well-known and well-established anomaly of development. Because it appears in various and complex forms, its diagnosis and treatment may be difficult, with different options based on anomaly variations, taking into consideration clinical and radiographic aspects as well as other criteria for treatment planning. A 10-year-old female patient, medically fit was referred by a general dental practitioner for root canal treatment of the maxillary right central incisor. She complained of spontaneous pain and clinical examination revealed a deep cingulum with carious, the initial periapical radiographic examination showed an abnormal morphology of two canals in one with an invagination and periapical lesion and open apex (Fig. 1). During the removal of deep dentin caries, the pulp tissue was exposed and extirpated. The patient was anesthetized, and a rubber dam was placed. A radiograph showed two canals in one configuration class II (weine1979), and the working length was established (Fig. 2). The irrigation was copious throughout with a 2.5% sodium hypochlorite solution. The root canals were dried with paper points and obturated with a lateral condensation technique with tapered gutta-percha and root canal sealer and restored with composite (Fig. 3). Nine months later, the tooth was asymptomatic, and all clinical and radiographic findings were within normal limits (Fig. 4). In conclusion, this case report demonstrated the importance of a correct diagnosis for the endodontics, and that the clinician should be careful that even the most routine of cases might deviate from the usual.



Figure 1: Pre-operative X-ray

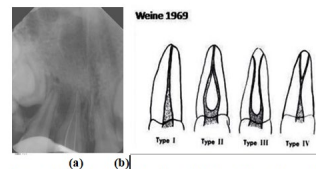


Figure 2: (a) Working length and (b) type II configuration

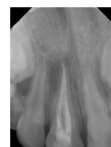


Figure 3: Obturation of root canals

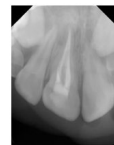


Figure 4: Recall radiograph after 9 months

Biography

Muneera Al-Khalifa graduated from the College of Dentistry at King Saud University in 1997. She worked as a GP at PSMCC until 2002, then joined the AGD-SBARD program and graduated from advanced education in the general Dentistry University of Southern California in 2007. She worked as a specialist at PSMCC until 2010, and then got promoted to a consultant until now. She worked on several complex cases and supervised general practitioners and interns. She participated in many national and international conferences.

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