



An erratic tooth in endodontic treatment

Ho-Jin Moon*, Chan-Ui Hong

Department of Conservative Dentistry, Dankook University, Cheon An, Korea

I. Introduction

Dens invaginatus is an anomaly of the tooth formation of embryonic origin that presents itself in several morphologic types. Root canal treatment of such teeth is often complicated by the unusual forms and location of invaginated and pulpal spaces that complicate thorough debridement. And Oehlers (1957) proposed the following classification: type I, characterized by a small invagination limited to the crown not extending beyond the cemento-enamel junction; type II, the line delineating enamel invagination invades the root, yet is limited to it as a 'cul-de-sac' configuration, without reaching the periodontal ligament, yet it may communicate with the tooth pulp and type III, a severe form of invagination extending through the root and ending at the apical region without direct communication with the tooth pulp.

The following case reports present three teeth with type II & III invagination malformations.

II. Case Presentation

Case 1

1. Sex/age: M/9
2. Chief Complaint (C.C): Severe pain of maxillary left lateral incisor
3. Present Illness (P.I): Percussion Positive, Gingiva swelling,
4. Impression: Oehlers Type III dens invaginatus with acute apical abscess
5. Tx Plan: Root canal treatment

Case 2

1. Sex/age: M/28
2. Chief Complaint (C.C): Discoloration of mandibular left central incisor
3. Past Dental History (PDH): Resin Operative tx hx. (10 yrs ago)
4. Present Illness (P.I): Percussion Positive, Old resin restoration
5. Impression: Oehlers Type II dens invaginatus with chronic apical periodontitis
6. Tx Plan: Root canal treatment, Non-vital bleaching

Case 3

1. Sex/age: F/8
2. Chief Complaint (C.C): Painful maxillary left central incisor
3. Present Illness (P.I): Percussion Positive
4. Impression: Oehlers Type III dens invaginatus with acute apical periodontitis
5. Tx Plan: Extraction

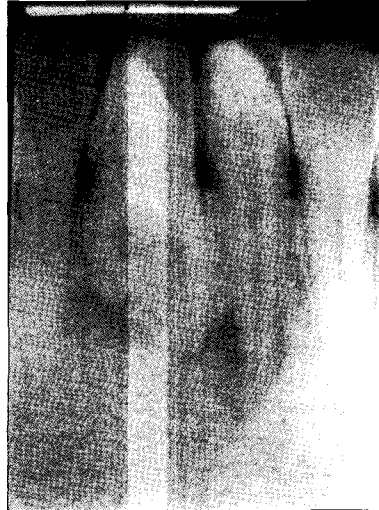
III. Conclusion

When treating this kind of tooth, the probability of finding all the canals and all the foramina for cleaning, shaping, and obturating is not predictable, which may affect the success of the treatment. However, nonsurgical endodontic treatment in teeth with dens invaginatus should be the first treatment alternative before recurring to endodontic surgery, intentional replantation, or extraction of the tooth. But an alternative approach including extraction should be considered if doubt exists about the adequacy of nonsurgical debridement and obturation of the canal system.

Case 1



Case 2



Case 3

