

Endodontic Treatment in Dentinogenesis Imperfecta

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I. Introduction

Dentinogenesis imperfecta (DI) is one of the most common disturbances of dentin formation, with an estimated incidence of 1:8000. In DI, the teeth have an opalescent color ranging from gray to brownish blue. The distinctive radiographic appearance of DI teeth is critical in establishing the correct diagnosis. The crowns are bulbous, with a constricted area at the cement-enamel junction. The roots appear shortened and conical or "spikelike." A striking feature is the partial or total radiographic obliteration of the pulp chamber and root canal as a result of overproduction of dentin. The cementum, periodontal membrane, and supporting bone appear normal.

In this case, the need for appropriate and timely dental treatment to help prevention of pulpal pathosis and the difficulty of endodontically treating DI-affected teeth will be discussed.

II. Case Presentation

1. Sex/age: F/11
2. Chief Complaint (C.C): Gingival swelling and spontaneous pain on Rt. Lower molar area
3. Past Dental History (PDH): Gold inlay on #46, Amalgam filling on #47
4. Present Illness (P.I)
 - ① Gingival swelling & redness on #47, #46 with tenderness to palpation
 - ② Per (+), Cold (-), EPT (-) on #47, #46
 - ③ Mob (++) on #47, Mob (+) on #46
5. Impression
 - ① Dentinogenesis imperfecta
 - ② Chronic apical periodontitis on #47, #46
6. Tx Plan
 - ① Non-surgical RCT on #47
 - ② Check up on #46 & Decision of Tx. plan

III. Conclusion

Early and correct diagnosis of dentinogenesis imperfecta is imperative to enable appropriate preventive interventions and optimal dental treatment. Although pulpal pathosis is rarely reported with dentinogenesis imperfecta, endodontic treatment is occasionally necessary and has a guarded prognosis if initiated after pulp canal obliteration has occurred.