

Permanent Mandibular Incisor with an Accessory Root: A Case Report and Orthodontic Rreatment Plan

Jafarinaeimi A¹, Ahmadi N², Alipanahi M²

¹ Assistant Professor, Orthodontics Dept, Islamic Azad University, Dental Branch, Tehran, Iran

²Post Graduate Student, Orthodontics Dept, Islamic Azad University, Dental Branch, Tehran, Iran

Abstract

Background and Aim: Accessory roots are developmental disturbances which can affect any tooth. The prevalence of accessory roots has been reported to be 0.68 %, mostly affecting mandibular canines and mandibular premolars and molars of both jaws, whereas permanent mandibular incisors are rarely affected by crown and root shape anomalies.

Case Presentation: A 17-year-old male with the chief complaint of dental malocclusion referred to the orthodontic department of Islamic Azad University of Tehran. In preliminary examination, a firm projection was palpated on the lingual mucosa of mandibular right lateral incisor. On periapical and panoramic radiographs, an unusual radiopacity attached to the root was detected. CBCT evaluation revealed an accessory root, lingual to the main root. The accessory root was amputated and by proper management, the orthodontic treatment was initiated.

Conclusion: Variations in tooth morphology are uncommon in mandibular incisors. These anomalies present difficulties in endodontic, restorative, prosthodontic and orthodontic treatments. Accurate diagnosis of these variations by using proper clinical and radiographic examinations plays an important role in treatment success. Moreover, the treatment plan should be adjusted according to patient's specific needs.

Keywords: *Accessory root, Supernumerary root, Mandibular incisors, Tooth anomaly, Cone-beam computed tomography*