

Lower premolar three rooted

This patient was referred to me after Root canal treatment of tooth 34 was initiated by the patients GDP however the canals could not be located. The tooth was causing a dull throbbing pain and was tender to bite on.

All endodontic treatment was carried out using a dental operating microscope over two visits. Three canal orifices were located. Chemo-mechanical preparation was completed in the first visit. An inter-appointment calcium hydroxide dressing was placed in the root canal and at the next visit the tooth was obturated with gutta-percha and zinc oxide eugenol based sealer, using a warm vertical condensation technique

A composite resin core was placed immediately following obturation.

This case describes the endodontic treatment of tooth 35 with three separate roots. Gender and ethnicity have been reported to affect the anatomic variations in mandibular second premolars, affect black (Trope 1986), males (Serman and Hasselgren 1992) more commonly. The prevalence of a three rooted premolar has been reported to be 0.1% (Cleghorn 2007).

Such cases are detected through thorough radiographic interpretation, close evaluation of the pulp chamber floor and adequate access. In this case the root canal trifurcated in the middle half of the root. Identification and management of all canals is essential in order to achieve endodontic success (Wolcott et al 2005). The use of an operating microscope, which was also essential in adequate chemo-mechanical and obturation of the canals.



