



### **Problem**

Lower premolar with difficult anatomy (canal splits into 3)

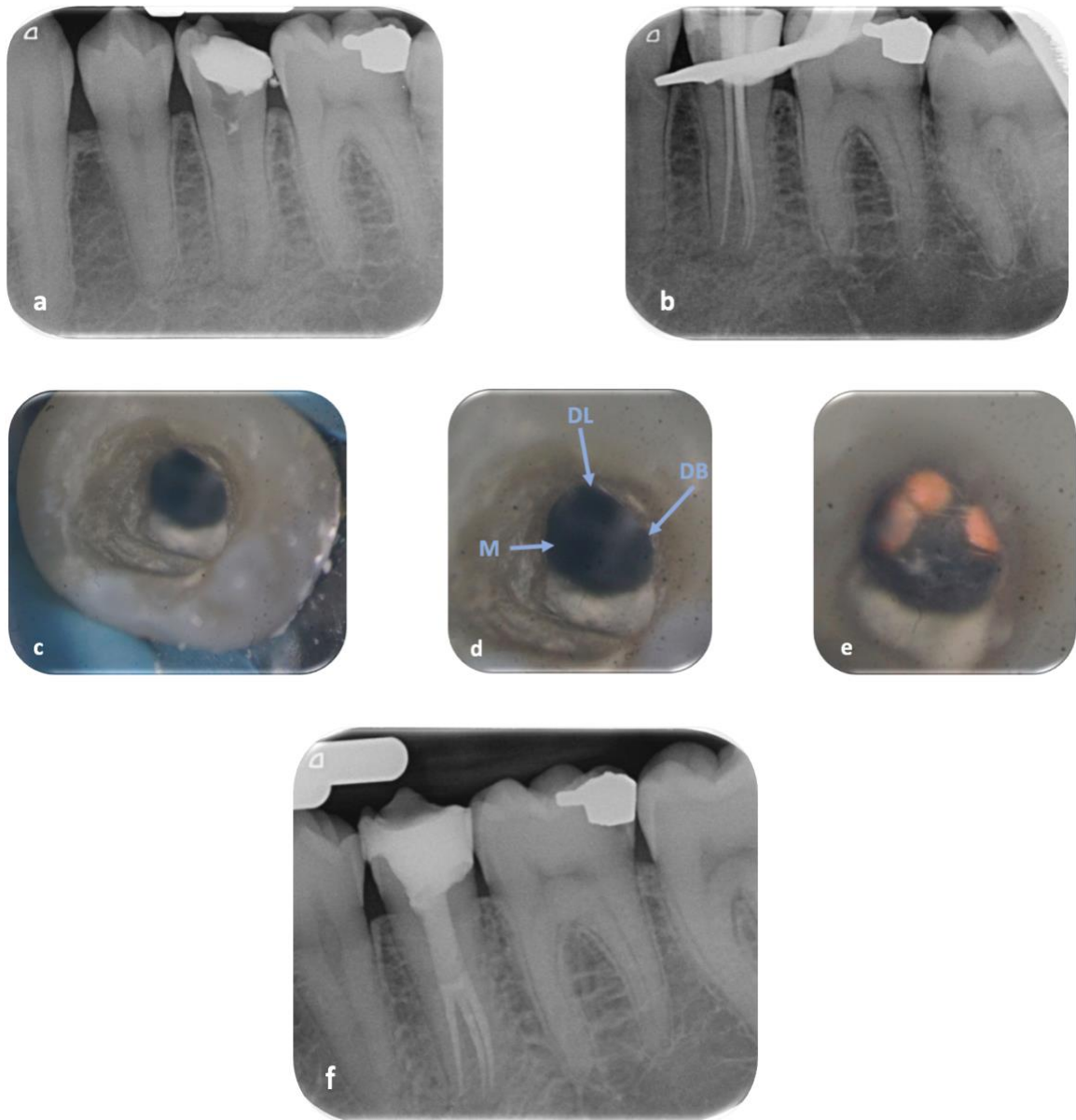
### **Treatment plan**

#### *Tooth 35*

1. Root canal treatment under magnification and control memory NiTi files
2. Composite restoration
3. Clinical and radiographic review

This case describes the endodontic treatment of tooth 35 with three separate roots. 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, was also essential in adequate chemo-mechanical and obturation of the canals.

In order to instrument the canals and maintain a conservative access the use of control memory wire files were beneficial. The files were precurved and passively inserted into the canal orifices. Control memory wire offers extreme flexibility, fatigue resistance and have a reduced tendency to straighten within the canal (Burklein 2014).



**Figure 3** (a) Pre-operative radiograph of tooth 35 (b) Master cone (c) Photograph of access (d) Magnified view showing three separate orifices prior to obturation (e) Magnified view of obturated canals (f) Postoperative radiograph, following placement of the composite core restoration.