Separated Instrument Removal

Contributed By: Dr. Steven J. Cohen – September 2002

Figure 1: Patient presents, with this as the pre-op radiograph. Referral letter states that this was done by another clinician, and that the referring dentist was just trying to see if she could bypass or remove the instrument (?). Note: Where is the rubber dam clamp?

Figure 2: A proper pre-op film was taken and the patient advised for completion of treatment, apical surgey in the future (likely, due to location of the metal piece, and poor prognosis for removal), and the option of extraction.

Figure 3: Patient returns 8 months later, for reassessment. Now there are two fistulas noted buccal to the tooth. The temp filling is washing out, and contamination is certain. The apical lesions are larger. Treatment options were again reviewed. The patient elected to try and save this tooth.

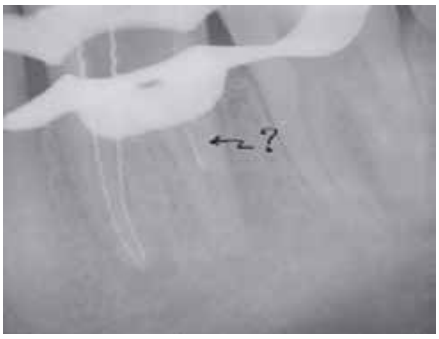

Figure 4: Access made into the tooth, with correction for straight line visibility into each orifice. MB canal had the fragment, the other two canals were cleaned and shaped, and left to soak in hypochlorite. Crown down Gates-Glidden burs were used, 5 to 2, to open the coronal and middle thirds of the canal. When the fragment was located, ultrasonic instrumentation began. This can be a tedious process, alternating between the CPR 5D (diamond coated) tip, and the CPR 8 (titanium, non-coated) tip. Both used at low frequency, the different metals and diamond grit contacting the fragment, and chipping away the dentin around the file, eventually result in loosening, and movement upwards out of the canal. In this case, the fragment disappeared (?) - a check film was taken to confirm length, and find the file. It was found in the distal canal, in the reverse direction!

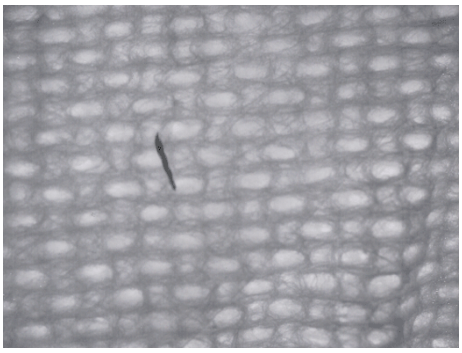

Figure 5: The file segment was carefully retrieved from the distal canal.

Figure 6: The canals were cleaned, shaped and packed with thermoplastic injection of gutta percha. Patient was advised to return for restoration of the core. A 3 month recall is planned to monitor healing.