

# Access all areas

Jon Cowie discusses a recently referred endodontic case.

The key to predictable outcomes in endodontics is the efficient use of instrumentation. Whilst hand files remain an important part of root canal treatment, particularly in the creation of a glide path and manually locating the canals, the new generation of reciprocating file systems can make preparation of the root canal faster, safer and more predictable. The following case clearly illustrates this point, especially when access is restricted in the posterior region of the mouth.

## Case study

A lady in her mid-60s was referred to me for endodontic treatment of the LL7. She had a recently fitted porcelain bonded crown which had become symptomatic specifically to hot and cold. At her consultation we made a diagnosis of symptomatic irreversible pulpitis (fig 1) and she agreed to endodontic treatment which was completed in a single visit to retain the tooth. Whilst very keen to keep the tooth she was naturally slightly hesitant about her new crown so we opted to take a reasonably minimal approach to preserve as much of the tooth structure as possible.

The access cavity was prepared in a stepped-access fashion to minimise the impact of dentine removal underneath the crown and help to preserve the tooth structure, particularly in the pericervical area. Initial access was made with a 016 medium round bur and small tapered diamond bur to locate and partially de-roof the pulp chamber (fig 2).



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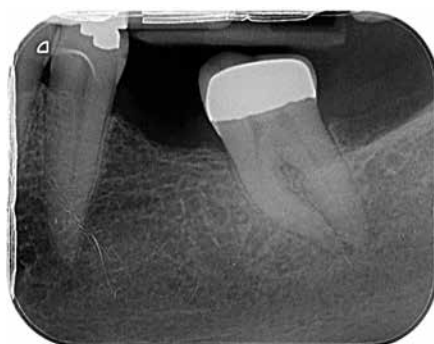


Fig 1: LL7 pre-operative radiograph.



Fig 2: LL7 access cavity.



Fig 3: LL7 WaveOne Gold Primary benefits of pre-curved.

The access was quite challenging so it required pre-curved of the WaveOne Gold Primary file. We did an initial scout with a size 08 C-pilot file and some preflaring using a WaveOne Gold Primary file before establishing our zero reading using an apex locator and Size 10 Readysteel hand file (fig 3).

The glide path was completed with the WaveOne Gold Glider followed by formal shaping of the canals with the WaveOne Gold Primary file 0.5mm back from our zero reading to establish our working length. Irrigation was carried out with 17 per cent EDTA and 5.25 per cent sodium hypochlorite with



Fig 4: LL7 post obturation - 2 mesials.



Fig 5: LL7 access cavity restoration.



Fig 6: LL7 post-operative radiograph.

a final rinse with isopropyl alcohol. An Irrisafe attachment in a Piezon scaler was used on this case to activate the irrigant.

Obturation was completed with Conform Fit matched gutta-percha points, AH Plus and a warm vertical compaction technique used (fig 4). SDR Universal (now SDR flow+) core in a syringe delivery was used to place the first increments of composite to allow accurate placement deep down and through the constricted access. The restoration was completed with Ceram.x Universal (now Ceram.x Spectra ST) (fig 5 and 6).