RICHMOND
ENDODONTIC CENTRE

90° OF HATE

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The dreaded curved and calcified canal has broken many a file over the years. The first step is to examine the pre-operative PA. It can often provide valuable information about the challenges of each case. However, radiographs are 2-D images of a 3-D object. Only curves in the mesial-distal direction are obvious on a PA. In short, radiographs cannot be relied upon too heavily as this will lead to underestimating the challenges many canals hold in store for us.

The most reliable indicators of a curved canal are:

- Difficulty attaining and maintaining patency
- Canals that feel 'tight'
- Unforeseen unwinding of files

Sometimes these are the only clues you get that a canal is more challenging than first envisioned

Just the other week, I completed the challenging case on the right. At first glance one would not expect the canals to be as curved as they indeed were. When examining the pre-op PA the 46 obturation could mislead one to think the 47 will have straight canals too. Upon closer inspection it is likely complex apical curves in the 46 were missed via transportation and blockage. Two of the three roots of 47 are curved but the extent of the canal curvature is not obvious. Upon access, the canal orifices were buried deep, especially the DL of the third root. Patency was eventually achieved using the balanced force technique with numerous small pre-curved hand files and frequent copious irrigation. The first goal is to achieve patency, the second is to create a reliable glide path, the third is open it up to allow for adequate irrigation and obturation, and the fourth is to not lose length or break a file.

Resist the urge to push a file when you have lost length. Pushing will compact débris and create a firmer blockage or gouge the walls and form a ledge. Instead, passively go back in the canal with a smaller pre-curved file. When resistance is met twist and pull ten to twenty times. Re-irrigate the canal and repeat, repeat, repeat, and repeat. This helps loosen compacted débris and allows the tip to find the true canal path. Rotary files are initially used in the middle and coronal thirds only. This is to prevent taper lock and allow a hand file to work unimpinged in the apical portion. In highly curved canals rotary files should be used with extreme caution. This is regardless of how much you paid for the latest and greatest bionic super-duper elastic NiTi's. Rotary files work best when there is an established glide path to follow. The newer files can follow smaller paths more reliably but they certainly do not replace a pre-curved hand file. The canals above took more time and effort than a typical case because the complexity of the canal system demanded it. There are no short corners with cases like this.

Orthograde endodontic treatment has a greater than 90% success rate if we put forth our best effort and endodontic microsurgery has an over 90% success rate for those cases that stump us all. Not all canals are created equally and not all challenging cases are obvious at first. So it is okay to re-evaluate the practicality of continuing with a case if you are having trouble getting or maintaining patency. I am here to help and I will invest time and effort to tackle even the gnarliest of cases.

Regards,

Joel N. Fransen
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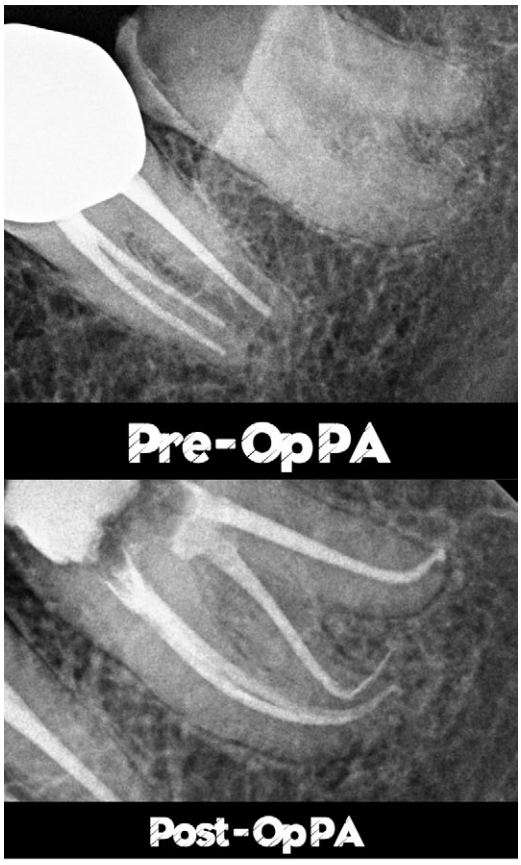
Certified Specialist in Endodontics



HAPPY EASTER!

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Extended hours are also available

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