RICHMOND
ENDODONTIC CENTRE

NO SCOPE LESS HOPE

JUN 2016

The so called endo failure is often due to an inability to identify all the canal orifices. Studies show novice dental students, battled hardened general dentists, and venerable endodontists find more orifices, create smaller access preparations, and attain better results with a microscope. Every practitioner attains better endo results with a microscope.

The first two images on the right are of a highly calcified pulp chamber. The microscope allows me to visually differentiate secondary and tertiary from primary dentine as well identify anatomical structures such as chamber floor and walls, developmental groves, and such . I followed the visual clues and eventually uncovered the buried DB orifice. Secondary and tertiary dentine is the dreaded calcification which prevents us from finding canal orifices. Primary dentine is formed as the tooth develops and its removal will weaken a tooth and its excessive removal will lead to an iatrogenic perforation rather than an orifice. But we have to find those canals otherwise the success rate suffers.

The third image is of a vertical root fracture that was only identified with a microscope during surgery. Clinically there were none of the typical clues of a vertical root fracture, such as narrow probing defect, mobility, and such. The various angled PA's revealed only an apical lesion and no hint of a fracture. The mighty CBCT images failed to reveal the true culprit for the failing endo. The fracture was only identified after resection of the apical 3mm of the root and visualisation under a scope. It may have been small but the surprise discovery of this small fracture was necessary for successful treatment.

The fourth image is of separated instrument as viewed with a microscope. Without a scope more tooth structure would need to be removed which compromises its structural integrity and increases the chance of an iatrogenic perforation or root fracture. The ability to remove or by-pass a file without a scope is also severely hampered even if significant tooth structure is sacrificed. So not only is instrumental removal with a microscope is more predictable it also safer.

Studies demonstrate the use of a microscope improves the fine motor skills critical to endodontic treatment. Regardless of past experience it is easier to get small files into tight orifices, negotiate around severe curves, by-pass ledges and obstructions, etc… with a scope. Improved fine motor skills will lead to less gouging of tooth structure, smaller access preparations, and more efficient treatment. With the scope you will execute better treatment.

The operating microscope is central to modern endodontic treatment, it allows us to enjoy higher success rates, lower the chance of iatrogenic mishaps, and work with greater efficiency. Many common modern endodontic procedures are only possible with the use of a microscope.

If microscopic endodontic treatment is not part of your clinical purview it is prudent to entertain custom loops and enhanced illumination. These two enhancements, although not the same as an operating microscope, are not without their merits. In endo you want to see it and treat it, or at least refer it before condemning it.

Regards,

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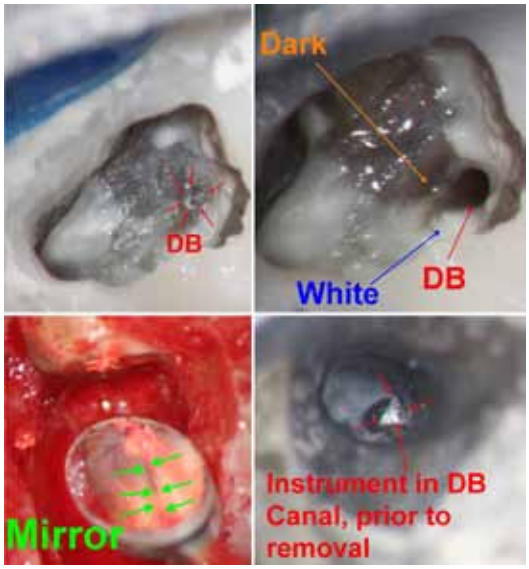

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Office Hours
8am to 5pm - Monday to Friday
Extended hours are also available

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