RICHMOND
ENDODONTIC CENTRE

SMALL ACCESS, BIG DEAL

APR
2018

There is a mantra in endodontics that has resurfaced: less is more for access preparation. The enamel is hailed as sacrosanct; its seemingly excessive removal tantamount to a perversion of modern endodontics.

This mantra is not new though; it was especially popular prior to the development of bonded restorations. Large accesses with thin walls of enamel can lead to cuspal fractures that, on occasion, can extend to the root and then bingo its exo and bridge time.

As bonded materials and their sales pitches developed the mantra for smaller accesses faded a bit. One need not worry about a large access filled with ugly enamel-cracking amalgam anymore; the new miracle light-cured composites would save the day and perhaps negate the need for crowns, forever. In dentistry, no man-made material has surpassed healthy dentine or enamel. Thus, their preservation is preferred over composite, gold, porcelain, and the like.

So what makes for a successful access? When is big beautiful and when is less more? To answer these questions please recall the principle of Dr. G.V. Black: sufficient tooth structure must be removed in order to eliminate the disease process and generate the best opportunity for success. That means proper access to all the canal orifices and apical constrictions must be achieved if an endodontic result is to be worthy of great éclat. An unfound canal has débris that cannot be relied upon to remain dormant forever. A small access preparation is only ideal if all of the orifices can be located and the entire canal system can be instrumented, irrigated, and obturated.

With magnification and illumination it is possible to see all of the wall-to-floor junctions without completely unroofing the chamber. Canal orifices are unerringly at the junction of the pulp chamber floor and walls. The prevalence of the operating microscope is why the small access mantra has returned with a vengeance. Adequate magnification and illumination allow one to strive for a smaller access without compromising Dr. Black's principle (i.e. the success rate of treatment).

The images above are of a case I recently completed with a moderately small access. The patient had limited opening which called for an angled approach. I was able to find all four canals and see the floor-to-wall junction for the entire chamber. If the canal orifices were difficult to find the access would have been larger. There is absolutely no benefit to preserving coronal dentine at the expense of adequate débridement, irrigation, and obturation. The elimination and prevention of apical periodontitis is the goal of endodontics. The preservation of coronal tooth structure cannot supersede that.

The two greatest limiting factors in successful endodontic accesses are not you or your hands but magnification and illumination. With practice and the right equipment you can achieve smaller access preparations for many but not all cases. Small access sizes are sublime but the big deal is a sufficient access for success.

Regards,

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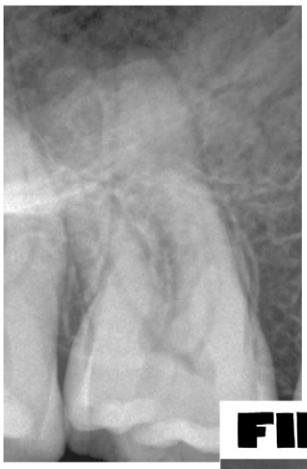

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