The importance of irrigation and PUI in modern endodontics

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The goal of root canal cleaning and shaping is the removal of vital or necrotic tissue, microorganisms and their byproducts while providing space for placing obturation material. The ultimate goal being the complete removal and disinfection of the endodontic space.

The tools used in mechanical enlargement of the root canal space are unable to conform to the intricate root canal anatomy. It has been shown that conventional instrumentation leaves as much as 35 percent of the canal anatomy untouched. Instrumentation and irrigation, although important factors in canal disinfection, cannot in themselves be relied upon for optimal canal cleanliness. As the market trends toward fewer required instruments, there is a resulting negative impact and consequence of less associated irrigation. This has impacted endodontic retreatment rates.

Acoustic streaming and cavitation have been proven to significantly enhance cleaning of difficult anatomy. When ultrasonic activation is introduced, irrigant streaming and cavitation occur, resulting in significantly improved debridement of canal spaces, disruption of biofilm and improved penetration of irrigants into dentinal tubules. The ultrasonic activation of irrigants greatly reduces bacteria levels and improves root sealing.

EndoUltra™ is the only cordless, activation device available. Not tied to a wall, the cordless device is easily incorporated into one’s existing irrigation protocol. Incorporating this product as well as enhanced irrigants into irrigation protocol is an effective, predictable method of improving endodontic care, according to the company.

Vista Dental Products asserts that its patented solutions Chlor-XTRA™ and SmearOFF™ 2-in-1 are ideal with the EndoUltra cordless activation device. (Photo/Provided by Vista Dental Products)

Chlor-XTRA™ is an enhanced NaOCl. Proprietary chemistry gives this 6 percent NaOCl a lower surface tension, allowing for improved penetration into canal anatomy and significantly faster tissue dissolution compared with standard NaOCl.

SmearOFF is an EDTA-based formula enhanced with chlorhexidine. SmearOFF not only effectively removes the smear layer, but also kills bacteria in one easy step. Unlike other two-in-one mixes, SmearOFF is compatible with sodium hypochlorite and will not form a precipitate, eliminating steps and saving time with each procedure.

Enhanced irrigants paired with ultrasonic activation is key to thoroughly cleansing canal anatomy. Vista Dental Products asserts that it offers a fantastic product line to not only simplify the irrigation process, but to more predictably achieve endodontic success.

For more information, call Vista Dental Products at (877) 418-4782 or visit www.vista-dental.com.