

Evaluation of Disinfection Using the GentleWave[®] System in Molars

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PURPOSE

Prevalence of bacteria in root canal treated teeth is common and is crucial for endodontic failure. The biofilm remaining in root canals can be a source of reinfection and apical periodontitis. This study, published in the Journal of Oral Health (2015), was performed to evaluate the performance of the GentleWave System on removing mature biofilm.

METHODS

Pre-shaped molars were inoculated with *E. faecalis* for five weeks. The molars were either treated with the GentleWave System or with active ultrasonic irrigation. For the GentleWave System treatments, the canals were shaped to ISO #15/.04. For the contemporary treatments, the canals were instrumented to ISO #35/.04. After treatments, the molars were split and processed for scanning electron microscopy. Statistical analysis was performed.

CONCLUSIONS

The ability of the GentleWave System to clean biofilm significantly from the root canal system of molars has been shown.

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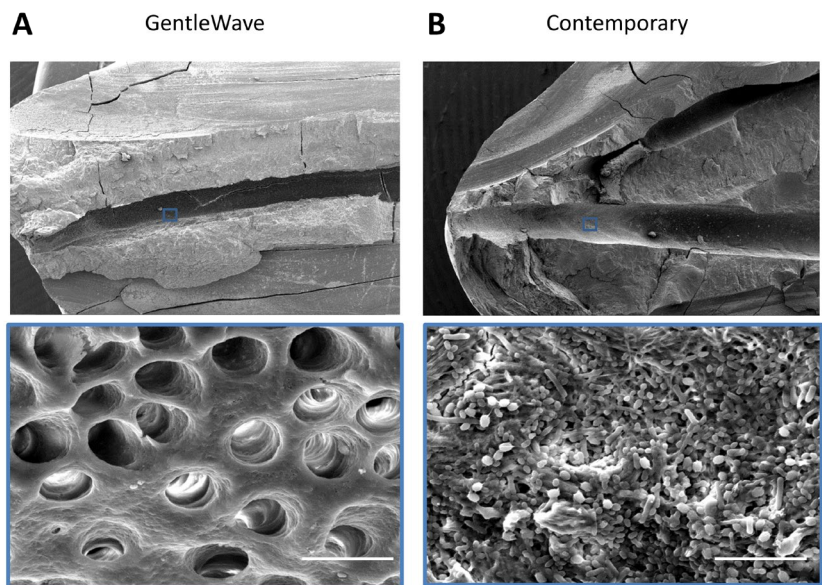


Figure 1. The figure shows representative SEM images (scale bar represents 10 μ m) of apical regions of molars treated with GentleWave[®] System or with contemporary endodontic treatment.