

Comparison Between A Novel Tissue Granulation Bur And Hand Curettes

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Objective: Removal of granulation tissue from periodontal defects is often time consuming and usually accomplished by scraping the bony walls and teeth with hand curettes (HC). The objective of this study was to determine if a newly designed tissue granulation bur (TGB) caused damage to the root surface when compared to the current standard method of using HC.

Methods: Twenty extracted human teeth were used in this study; one root serving as the control HC cleaned side and the other root the TGB side. Impressions were made before and after instrumentation of the root surfaces with the various instruments. Following pre instrumentation impressions, test surfaces were instrumented for sixty seconds with either an HC or the TGB. Replicas of the impressions in resin were fabricated and examined with SEM. Images were compared using an image analysis system to determine changes in the samples after treatment. In addition, 10 volunteers analyzed the SEM micrographs using a visual analog scale to score differences between groups.

Results: Data from the both analyses suggested that there was no significant difference between use of the TGB and the HC ($p > 0.01$). While some variation was present in interexaminer scores, at no time was the HC removal method rated as superior to the TGB technique.

Conclusion: While further studies are needed, these initial results suggest that our newly developed TGB has the potential for being an effective method for removing granulation tissue from teeth. Supported by NIH 2 R44 DE017829-02A1 and the Baylor Oral Health Foundation.