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ORIGINAL ARTICLE

Photodynamic therapy in endodontic treatment of deciduous teeth

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Abstract The purpose of this study was to evaluate photodynamic therapy in deciduous teeth with necrotic pulp by means of fully quantifying viable bacteria, before and after instrumentation and after the use of photodynamic therapy. Radicular canal cultures were conducted (n=10): the first one was performed right after access and location of the radicular canal; the second was performed after the conclusion of chemical–mechanical instrumentation, and the last one after photodynamic therapy. The photodynamic therapy was performed with 4 J/cm energy low-intensity diode together with toluidine blue. The results ($\log_{10}$) were submitted to a descriptive analysis and Wilcoxon test. The percentage of reduction was submitted to the Mann–Whitney test. The instrumentation resulted in a reduction of 82.59% of viable bacteria, and, after photodynamic therapy, the microbial reduction observed was 98.37% (P=0.0126). Photodynamic therapy is recommended as adjunct therapy for microbial reduction in deciduous teeth with necrotic pulp.