

**THE EFFECTIVENESS OF 8% PROPOLIS EXTRACT AND 2,5% SODIUM
HYPOCHLORITE (NaOCl) FOR THE CLEANLINESS OF
ROOT CANAL**

ABSTRACT

Background. Root canal instrumentation produces smear layer that covers the dentine tubules of the root canal surface that had been prepared. Smear layer is a debris that consisting of organic and inorganic particles that has to be removed to support the success of endodontic treatment. Propolis is a natural bee product that contains of saponin componens which are as surfactants to dissolve smear layer. NaOCl 2,5% has been used dor irrigation solutions that can remove the organic particles of smear layer. Until now the research about the difference effectiveness between propolis 8% extract and NaOCl 2,5% still has not been done. **Purpose.** This study carried out SEM analysis of the cleanliness of root canal walls, irrigated with aquadest, 8% propolis extract and NaOCl 2,5%. **Method.** Twenty one extracted teeth with straight single root canals were randomized divided into 3 groups (n=7). The specimens instrumented with ProTaper for Hand Use up to F3. During instrumentations, irrigations were giving with the different solutions: Control Group: aquadest; Group 1: 8% Propolis extract; Group 2: NaOCl 2,5%. After that, the root were cut for SEM analysis, at third apical, to ascertain the cleanliness pf root canal walls. SEM scores were submitted to Mann-Whitney test at the significance level of $p=5\%$ and Median Control Test. **Results.** For Mann-Whitney there were significant differences between each group ($p>0,05$). Median value of 8% propolis extract shown 1,000, which is the smallest value compared to the value of the other groups. **Conclusion.** Propolis extract is better in cleaning the root canl walls compared with NaOCl 2,5%.

Keywords: Smear Layer; Propolis Extract; NaOCl; Root Canal Walls