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 hasto be removed to support the success of endodontic treatment. Propolis is a natural bee product that contains of saponin compoenents 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 devided 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