

ABSTRACT

Background : Root canal instrumentation produces smear layer that cover dentine tubules of the root canal surface. Smear layer will reduce the attachment of root canal filling material. Organic material in smear layer can be substrated for microorganism. Because of that, preparation of root canal should be followed by irrigation. NaOCl is common irrigation solution in endodontics. It has been very effective for its disinfecting and tissue-dissolving properties, but it is incapable of removing the smear layer. Currently, it has been many studies about phytomedicines in endodontic because of their advantages like less toxic, safe and cost effectiveness. Propolis and cocoa pod husk contain saponin that has an ability as a surfactant to lower the surface tension, and it can dissolve debris containing of anorganic and organic materials. **Purpose:** the purpose of this study was to know about the effectiveness differences of 8% propolis extract and cocoa pod husk extract to the cleanliness of root canal walls. **Method :** Twenty five extracted teeth with straight single root canal were randomly divided into five groups (n=5). The specimens were prepared with ProTaper Next. During instrumentation, the root canal were irrigated with different solutions: Group 1 irrigated with NaOCl 2,5%; Group 2 irrigated with 8% propolis extract; Group 3 irrigated with 3,12% cocoa pod husk extract; Group 4 irrigated with 6,25% cocoa pod husk extract; Group 5 irrigated with 12,50% cocoa pod husk extract. The root canal were cut and SEM score were tested by using Mann-Whitney test at the significance level of $p=0,05$. **Result :** The result of Mann-Whitney test, there were significant differences between Group 1,2,3,4,5 ($p<0,05$). Based on median control test, the value of 6,25% cocoa pod husk extract was 1,6; it was the best compared to 2,5% NaOCl, 8% propolis extract, 3,12% cocoa pod husk extract, and 12,50% cocoa pod husk extract. **Conclusion:** It can be concluded that 6,25% cocoa pod husk extract is the most effective solution for cleaning root canal walls compared with 2,5% NaOCl, 8% propolis extract, 3,12% cocoa pod husk extract, and 12,50% cocoa pod husk extract

Keyword : propolis extract, cocoa pod husk extract, root canal wall