

**ABSTRACT**

**Background:** Irrigation during endodontic therapy facilitates a debris-free and aseptic root canal. An efficient irrigant not only has flushing action, lubrication, tissue-dissolving ability, wide antimicrobial effect, and low toxicity; but also requires optimum physico-chemical prerequisites like lower surface tension and higher wettability. **Aim:** The study was to determine the effective concentration of the cleaning power of cinnamon bark extract (*Cinnamomum Burmanii*) can clean the root canal walls of the debris. **Material and Method:** thirty extracted premolar human teeth with straight single roots were randomized into 5 groups (n=6). The specimens were shaped by using rotary instruments up to size 25/07. During instrumentation, each canal was irrigated with cinnamon bark extract infusion with different concentration according to each group and a control group irrigated with sodium hypochlorite 2.5% after that, observe the result of root canal treatment cleanliness by using scanning electron microscope (SEM). **Result:** there were significant differences between each group ( $p < 0.05$ ), except in the irrigated group cinnamon bark extract (*Cinnamomum Burmanii*) of 20% and sodium hypochlorite 2.5% ( $p > 0.05$ ). **Conclusion :** *Cinnamomum Burmanii* bark extract with a concentration of 20% effective for cleaning the root canal walls of the debris.

**KEYWORDS:** Root canal irrigants, Cinnamon bark extract (*Cinnamomum Burmanii*), Saponin, Smear clear, Surfactant, Sodium hypochlorite