

ABSTRACT***DIMENSIONAL STABILITY OF ALGINATE IMPRESSION AS A RESULT OF DISINFECTATION TECHNIQUES WITH CINNAMON ESSENTIAL OIL 0,5%*****ABSTRACT**

Background: An impression material that is often used is alginate. Alginate is one of agents of infection's transmission to dentist and dental technicians. Disinfectants of the alginate impression can be done to avoid bacterial contamination by spraying and immersion technique. Cinnamon essential oil 0,5% could be used as disinfectant for alginate impression and one of its active ingredient is phenol. Phenol will hydrogen bond with water contained in alginate and possibly to changes the dimension of alginate impression. **Purpose:** Knowing the dimensional stability of alginate impression after the disinfectant application with cinnamon essential oils (*Cinnamomum burmanii*) 0.5% by spraying and immersion techniques. **Method:** The sample of this study is alginate impression made from the master model. There are 4 groups of samples, respectively 7 samples in each group. Disinfection procedures were done by spraying and immersion techniques for 10 minutes. Impression were cast in dental stone and dental stone's cylinders were measured by caliper. The results were analyzed by statistical repeated measures ANOVA. **Result:** The p-values higher than α ($p > 0.05$), which means there is no significant difference in the dimension after alginate sprayed and soaked for 10 minutes in the cinnamon essential oil solution. **Conclusion:** Disinfection procedures by spraying and immersion with cinnamon essential oil 0.5% did not have effect to dimensional stability of alginate impression.

Keywords: Disinfection, alginate impression, dimensional stability, cinnamon essential oil 0.5%.