

EFEKTIVITAS PENYEMPROTAN EKSTRAK DAUN SIRSAK  
(*Annona muricata L.*) SEBAGAI DESINFEKTAN KOLONI  
MIROORGANISME PADA CETAKAN ALGINAT

(THE EFFECTIVITY OF SOURSOP LEAVES (*Annona muricata L.*) EXTRACT  
SPRAY AS A DISINFECTANT FOR MICROORGANISM COLONY  
ON ALGINATE IMPRESSION)

ABSTRACT

**Background.** Alginate is one of the most frequently impression material widely used by dentists. This material has many advantages for dentists but it also has a high risk for contaminated by microorganism derived from saliva and blood that potentially causing cross-contamination to operator, operator's assistant or dental laboratory technicians. Disinfection is needed to reduce the contamination of microorganisms in the mold. One of the natural disinfectant that can be used is soursop leaves (*Annona muricata L.*) extract that proven having antimicrobial, antifungal, antiviral, and also anticancer effects. **Purpose.** The purpose of this study is to find out the effectivity of the soursop leaves extract as a disinfectant to decrease the microorganism colony on alginate impression. **Material and method.** Twenty eight samples taken from seven respondents that fulfill the requirement. These alginate impressions taken in first molar of right mandible region then divided into four groups: group 0 sprayed by sterile aquades as a control, group 1 sprayed by 20% soursop leaves extract for 30 second, group 2 sprayed by 30% soursop leaves extract for 30 second, and group 3 sprayed by 40% soursop leaves extract for 30 second. Then continues by counting the microorganism colony on the blood agar with Colony Forming Unit. Data analysis using SPSS application for Kolmogorov-Smirnov Test, Levene Test, Kruskal-Wallis Test, and Mann-Whitney Test. **Result.** There is significant difference between each group ( $p < 0,05$ ). **Conclusion.** Soursop leaves extract is effective as a disinfectant for decreasing microorganism colony on alginate impression material.

**Keywords:** Alginate impression, soursop leaves, oral microorganism