ABSTRACT

THE EFFECTIVITY OF *TAMARINDUS INDIKA LINN* TOWARD THE AMOUNT OF *CANDIDA ALBICANS* AND THE TRANSVERSE STRENGTH

Elly Rusdiana

A laboratory experimental study has been carried out to examine the effect of *Tamarindus indika linn* as *Candida albicans* cleanser solution and its effect to the transverse strength of acrylic base plate. From this study, it will know the effective concentration and duration of immersion that can reduce the amount of *Candida albicans* without decreasing the transverse strength of acrylic base plate. This experiment used cold cured acrylic with unpolished surface to test the *Candida albicans* and the transverse strength in the size of 10×10×1 mm and 65×10×2.5 mm respectively. The concentrations of *Tamarindus indika linn* solution that being used for *Candida albicans* test were 15%, 30%, 45% with 15, 30, 45 minutes time of immersion respectively. The transverse strength of acrylic base plate test were done on the same concentrations of solution with duration of immersion for 8, 15, and 23 days. The control group used sterile aquades. One way ANOVA was used to analyze the data and the level of significant was 5%. Then, the LSD test was used. The result of the study showed that the concentration of *Tamarindus indika linn* solution which was effective to inhibit the growth of *Candida albicans* was 45%. It showed that the higher concentration the more effective in inhibiting the growth of *Candida albicans*. There was no significant difference on the transverse strength that were tested with 15%, 30%, and 45% concentrations of the solution with duration of immersion for 8, 15 and 23 days. Nevertheless, 30% *Tamarindus indika linn* solution for 30 minutes was more efficient than 45% concentration for 45 minutes because there was no significant difference between them.

Keywords: *Tamarindus indika linn*, *Candida albicans*, transverse strength, acrylic resin.