ABSTRACT

EX VIVO STUDY DIFFERENCES IN THE EFFECTIVENESS OF 100% WATERMELON (*Citrullus lanatus*) FRUIT EXTRACT WITH 10% CARBAMID PEROXIDE GEL IN WHITENING TEETH

Tooth discoloration is a condition in which teeth experience a change in color or translucency. Treatment in dentistry that can be done for cases of discoloration is teeth whitening (dental bleaching). The use of teeth whitening agents that contain chemicals can cause some side effects, so a safer alternative is needed, namely 100% watermelon (*Citrullus lanatus*) extract. The type of research used is a pretest-posttest group design. The total number of samples in this study were 27 samples in the form of maxillary permanent incisors which were divided into three experimental groups, namely the group soaked with 100% watermelon (*Citrullus lanatus*) extract, 10% carbamide peroxide gel and sterile distilled water. Measurements using a spectrophotometer. The data in this study were normally distributed and homogeneous. The pretest-posttest paired analysis test using the Paired T-Test test showed that the mean differences between the groups before and after were significantly different. Parametric statistical test with Oneway Anova showed that there were significant differences in each group after treatment. The highest level of effectiveness was owned by 10% carbamide peroxide gel, seen from the mean difference in the LSD Post Hoc test. Based on the results of the study, it can be concluded that watermelon extract (*Citrullus lanatus*) is 100% effective as a teeth whitening agent, but not more effective than 10% carbamide peroxide gel.

Keywords *: teeth whitening, 100% watermelon (Citrullus lanatus) extract, discoloration*