

BLOCK THE GROWTH OF *Streptococcus mutans* BACTERIAL ON A HEAT CURED ACRYLIC RESIN DENTAL PLATE

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ABSTRAK

Background of the Study: Acrylic resin artificial teeth is always having contact with saliva, drinks, and food. Therefore, the artificial teeth becomes the store house of microorganisms. Soursop leaf is an alternative material for dental cleaning because it contains antibacterial substances like tannins, flavonoids and alkaloids which is able to block the growth of the number of *Streptococcus mutans*. **Objective of the Study:** The aim of this research is to find out the effectiveness of soursop leaf's extract (*Annona muricata L.*) in blocking the growth of *Streptococcus mutans* bacterial on a heat cured acrylic resin dental plate. **Method :** It is a laboratory experimental research with a post test only control group design. Twenty-five heat cured acrylic plates 64x10x3.3 mm was divided into 5 treatment groups of soursop leaf's extract with 25%, 35%, 45%, 55%, 65% concentrations. The number of repetitions for each treatment is 5 times. **Results:** This research showed that the soursop leaf's extract with 65% concentration got the smallest average number of *Streptococcus mutans* for (3,60) and the highest average number of *Streptococcus* was in 25% concentration for (67,00). The data analysis of One Way ANOVA showed the p value = 0,000 (p<0,05), it means there is significant difference of *Streptococcus mutans* on the soursop leaf's extract in 25%, 35%, 45%, 55%, 65% concentrations. **Conclusions:** There is a reduction in the number of *Streptococcus mutans* bacterial colonies on the soursop leaf's extract, which is the higher the concentration, the less number of bacterial on the acrylic plate.

Keywords: Acrylic resin, *Streptococcus mutans*, Soursop's leaf.