

**PENGARUH WAKTU DAN PENGOLESAN *EDIBLE COATING*
PADA RESIN AKRILIK *HEAT CURED* TERHADAP
PERTUMBUHAN KOLONI *Streptococcus mutans***

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ABSTRAK

Background of the Study: Tooth loss can be restored by using an artificial teeth. The base surface of artificial teeth will cause a colonization and proliferation of the bacterial and fungal which causes a denture stomatitis, therefore the edible coating is used as the plate coating of heat cured acrylic resin because of its character as the antibacterial that can reduce the number of *Streptococcus mutans* in the artificial dental plate. **Objective of the Study:** To find out the influence of the heat cured acrylic resin plate with the edible coating and without the edible coating towards the growth of *Streptococcus mutans* in 24 hours, 48 hours, and 72 hours. **Method:** This research used the laboratory experimental with post only control group design. The samples used were 24 heat cured acrylic resin plates in size 64x10x3,3 mm which were divided into 6 groups: the acrylic resin plate which was applied with the edible coating and without the edible coating in 24 hours, 48 hours, and 72 hours. **Results and Conclusions:** The results of the data analysis using *One Way ANOVA* showed the significant difference reduction of the number of *Streptococcus mutans* on the acrylic resin plate with edible coating and without edible coating in 24 hours, 48 hours, and 72 hours, showed the value $p=0,000$ ($p<0,05$). The number of *Streptococcus mutans* on the heat cured acrylic resin plate with edible coating had the less number of *Streptococcus mutans* than the heat cured acrylic resin plate without the edible coating, and the less the time given, the less number of *Streptococcus mutans* got. It can be concluded that the edible coating on the heat cured acrylic resin plate can blocked the growth of *Streptococcus mutans*.

Keywords: Heat cured acrylic resin , denture stomatitis, *Streptococcus mutans*, Edible coating