ABSTRACT

KONSENTRASI HAMBAT MINIMAL (KHM) DAN KONSENTRASI BUNUH MINIMAL (KBM) EKSTRAK PROPOLIS TERHADAP *Lactobacillus acidophilus*

MINIMUM INHIBITORY CONCENTRATION AND MINIMUM BACTERICIDAL CONCENTRATION PROPOLIS EXTRACT ON Lactobacillus acidophilus

ABSTRACT

Background. *Endodontic science aims to maintain the vitality of dental pulp, one of them with pulp capping. Now commonly patient come to dental clinics diagnosed had reached caries dentin. In carious dentin bacteria that commonly found is Lactobacillus acidophilus. Pulp capping material commonly used today is calcium hydroxide, but its has some disadvantages as a chemical material, therefore try to back to nature so used alternative material one of which is propolis. Propolis has some of the largest content of the active compounds are flavonoids and terpenoids with their different mechanism as an antibacterial agent.* ***Purpose.*** *The aim of this study is to know the antibacterial effect of propolis extract by determining its minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) on Lactobacillus acidophilus.* ***Method.*** *This research was and observational study. The extract of propolis was made by maceration method as a solvent to extract propolis is ethanol, and dilution into several concentration using aquadest. Direct contact method between various concentration and colony was used, then continued with colony count to determine the value of MIC and MBC of propolis extract on Lactobacillus acidophilus.* ***Result.*** *Propolis extract had MIC of 7%, MBC of 8% and based on the colony counting showed that the colony of Lactobacillus acidophilus decreased as the extract concentration increased.* ***Conclusion.*** *MIC value of propolis extract on Lactobacillus acidophilus is 7% and the value of MBC of propolis extract on Lactobacillus acidophilus is 8%.*

Keywords: *Propolis extract, Flavonoid, Triterpenoid, Lactobacillus acidophilus, Antibacterial*