ABSTRACT

Background: Early Childhood Caries (ECC) is caries on children characterized by white spot can result destruction of crown of tooth. Lactobacillus sp is dominant bacteria in progressives ECC. Povidone Iodine 1% often used to preventive progressives ECC, but Povidone Iodine 1% has adverse side effects like allergic and local erythema. Citrus peels and jasmine extract is one of the herbs that can be used as a preventive treatment of progressives ECC because contained flavonoid compound that can serve as an antibacterial.

Purpose: The aim of this study was to observe the inhibition of combination gel Citrus peels and jasmine extract toward bacteria Lactobacillus sp cause ECC more effective than Povidone Iodine 1%.

Method: This research is laboratory experiment with post-test only design, used 4 treatment consist of gel citrus peels extract, gel jasmine extract, gel combination citrus peels and jasmine extract, and Povidone Iodine 1% as a control group. Each treatment is repeated 5 times. The rated bactericidal effect of the inhibition zone formed on Muller Hinton media with diffusion method. Result: One Way ANOVA test showed that inhibition zone had a significant difference, gel combination citrus peels and jasmine extract has higher antibacterial effect toward Lactobacillus sp with mean inhibition 32, 11 mm than gel citrus peels extract and gel jasmine extract toward Povidone Iodine 1% with mean inhibition 20, 47mm. Conclusion: Gel combination citrus peels and jasmine 0, 39% more effective to inhibit bacteria Lactobacillus sp than Povidone Iodine 1%.

Keyword: Flavonoid, Gel combination citrus peels and jasmine extract, Early Childhood Caries, Lactobacillus sp, Povidone Iodine 1%