ABSTRACT

DAYA HAMBAT EKSTRAK VITIS VINIFERA TERHADAP PERTUMBUHAN CANDIDA ALBICANS

VITIS VINIFERA EXTRACT INHIBITION ON THE GROWTH OF CANDIDA ALBICANS

Background: Denture stomatitis is an inflammation of the oral cavity due to denture usege. Fungal infections generally occur in the oral cavity as a result of Candida growth. Most infectious agent are Candida albicans. Denture stomatitis can be prevented by maintaining oral hygiene and denture hygiene. One of the way to prevent denture stomatitis is to soak the denture in denture cleaning solution. Vitis vinifera contain active compounds which have antifungal activity, namely gallic acid, catechin, and resveratrol making it possible to be made as a denture cleanser. Purpose: The aim of this research was to determine the Minimum Inhibiting Concentration (MIC) of Vitis viniera extract on the growth of Candida albicans. Methode: The MIC determination used serial dilution technique of 100%, 50%, 25%, 12.5%, 6.25%, 3.125%, 1.5625%, 0.78125% concentration and control. The growth of Candida albicans was observed at each concentration and determined the MIC of Vitis vinifera extract. Five groups consist of positive and negative control, 50%, 25% 12,5% concentration groups. The number of Candida albicans colony grown on sabouraud dextrose agar were observed and counted. The data was analyzed using One-way ANOVA and LSD Post Hoc Test with 5% degree of significance (p < 0.05). Result: There were significant differences in quantity of Candida albicans $(p \le 0.05)$ among the three groups (positive control, 25% and 12.5% concentration). Conclusion: Vitis vinifera extract can inhibit the growth of Candida albicans at 25% concentration as MIC.

Keywords: Vitis vinifera, Candida albicans, MIC, Denture cleanser.