Efektivitas Ekstrak Kulit Buah Anggur Probolinggo Biru (Vitis Vinifera L.) terhadap Pertumbuhan Candida Glabrata secara in Vitro

(The Effectivity of Blue Probolinggo Grape Skin Extract (Vitis Vinifera L.) on The Growth of Candida Glabrata in Vitro)

ABSTRACT

Background. HIV/AIDS patients who have Oral candidiasis often experience resistance to drug use of azole class due to taking antifungal drugs for a long time. The rapid development of resistance Candida glabrata common in the use of fluconazole and itraconazole. Nowadays, the development of treatment technologies and world health refocuses the pursuit of drug ingredients derived from nature. Grape fruit is widely studied by researchers about its pharmacological benefits. Grape skin contains many polyphenolic compounds, such as resveratrol (stilbene), tannin, and catechin. Plants that contain polyphenols were reported to have antifungal activity. Purpose. The aim of this study was to determine the effectivity of blue Probolinggo grape skin extract as antifungal activity to the growth of Candida glabrata and to get the MIC and MFC of grape skin extract. Method. The 100% concentration of grape skin extract is diluted into some concentrations (50%, 25%, 12.5%, 6.25%, 3.125%, 1.56%, and 0.78%) and grown on Sabouraud dextrose liquid medium with Candida glabrata, then they are incubated. Positive and negative control is made as a comparison. After that, the cultures is planted on agar plate to count the number of colonies. The statistical analysis was carried out by One-way ANOVA (p<0.05) showed that there is significant differences at each concentration. Results. The results showed that blue Probolinggo grape skin extract can inhibit the growth of Candida glabrata at minimum consentration (MIC) 12.5% and MFC 25%. Conclusion. Blue Probolinggo grape skin extract has antifungal activity to the growth of Candida glabrata.

Keywords: Blue Probolinggo grape skin extract, Candida glabrata, polyphenol, antifungal.