

ABSTRACT

ANTIFUNGI ACTIVITY TEST OF 80% ETANOL EXTRACT OF ROSEMARY LEAVES (*Rosmarinus officinalis* L.) AGAINST *Candida albicans* IN VITRO

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Candida albicans is a fungus belonging to the class of yeasts that can cause candidiasis which generally infects the skin, nails, mucous membranes, and gastrointestinal tract. Rosemary leaves are perennial aromatic herbaceous plants that contain alkaloids, terpenoids, polyphenols, tannins, saponins, and flavonoid compounds. Rosmarinic acid compounds can also inhibit the RTPase enzyme in *Candida albicans* fungi. This study aimed to determine the ability of 80% ethanol extract of Rosemary leaves (*Rosmarinus officinalis* L.) to inhibit *Candida albicans*' growth. The method of testing antifungal activity uses disc paper diffusion with the pour plate method. The procedure that was first carried out was the process of making *Candida albicans* fungal culture with oblique PDA media that had been scratched with *Candida albicans* fungi; Making fungal suspensions using PDB media which had been given 2-3 strokes of *Candida albicans* fungi; antifungal activity tests carried out by bottling antifungal compounds, positive control (Ketoconazole 20 ppm), and negative control (DMSO 10%) into 25 μ l disc paper. Then the disc paper was placed on PDA media which contained *Candida albicans* suspension. The concentrations used were 100 μ g/ml, 500 μ g/ml, 1000 μ g/ml, 5000 μ g/ml, 10.000 μ g/ml. Replication was done 3 times. The results showed an inhibition zone formed around the disc paper at concentrations of 100 μ g/ml, 500 μ g/ml, 1000 μ g/ml, 5000 μ g/ml, 10.000 μ g/ml each with an inhibition zone diameter of 8,75 mm, 9,39 mm, 10,40 mm, 11,39 mm, 12,26 mm. The factor that causes the results of this study to be greater is due to the solvent concentration unit used when extracting and the secondary metabolite compounds contained in the extract, where the 80% ethanol extract of Rosemary leaves (*Rosmarinus officinalis* L.) contains secondary metabolite compounds, namely terpenoids, alkaloids, flavonoids, polyphenols, tannins, and saponins.

Keywords : Antifungal activity, *Candida albicans*, paper disc diffusion, 80% ethanol extract of Rosemary leaves