

ABSTRACT

TEST OF ANTIFUNGICAL ACTIVITY OF 80% ETHANOL EXTRACT OF ROSEMARY (*Rosmarinus officinalis* L.) LEAVES AGAINST *Candida glabrata*

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Candida glabrata 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 glabrata* fungi. This study aimed to determine the ability of 80% ethanol extract of Rosemary leaves (*Rosmarinus officinalis* L.) to inhibit *Candida glabrata* 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 glabrata* fungal culture with oblique PDA media that had been scratched with *Candida glabrata* fungi; Making fungal suspensions using PDB media which had been given 2-3 strokes of *Candida glabrata* fungi; antifungal activity tests carried out by bottling antifungal compounds, positive control (Ketoconazole 20 ppm), and negative control (DMSO 10%) into 25 µl disc paper. Then the disc paper was placed on PDA media which contained *Candida glabrata* suspension. The concentrations used were 100 µg/ml, 500 µg/ml, 1000 µg/ml, 5000 µg/ml, 10.000 µg/ml. Replication was done 3 times. The results showed an inhibition zone formed around the disc paper at 10.000 µg/ml concentrations with an inhibition zone diameter of 6,6 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 glabrata*, paper disc diffusion, 80% ethanol extract of Rosemary leaves