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Efektivitas minyak atsiri lengkuas putih (alpinia galanga) terhadap pertumbuhan staphylococcus aureus 302 yang resisten multiantibiotik

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Abstrak

The rhizome of white galangal (Alpinia galanga) is one of the cultivated remedies traditionally administered for skin disease, asthma and anabolism troubles such as colic, food poisoning, and convulsions. A part of the chemical composition of white galangal rhizome is essential oil. The aim of this study was to determine the antibacterial effect of the essential oil of white galangal rhizome against the growth of Staphylococcus aureus 302 resistant to ampicillin, amoxicillin, penicillin G, kanamycin, mecillinam, and ceftazidime. Fifty ul essential oil of white galangal rhizome in concentrations of 5, 7.5, 10, 12.5 or 15 % were dropped into 6 mm of diameter well in MHA media given to S. aureus 302. Propylene glycol (5% vol) was used as negative control and solvent. The treatment to each concentration group was repeated fifteen times. The diameter of radical zone of the growth of S. aureus 302 was measured using sliding calipers. The results of ANOVA (p<0.05) showed that the essential oil of white galangal rhizome had a significant antibacterial effect against S. aureus 302. The result of LSD test (p<0.05) showed a significant difference between the concentration groups, except for the 10 and 12.5% concentrations which had the same effect.