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"THE EFFECTIVENESS INHIBITORY POWER OF TERPENOID IN CORIANDER (Coriandrum sativum L.) SEED FRACTION ON THE GROWTH OF Staphylococcus aureus BACTERIA"

ABSTRACT

Background: Treatment due to Staphylococcus aureus infection generally uses antibiotics that can inhibit the growth or kill the growth of bacteria. Currently, the irrational use of antibiotics has led to the emergence of antibiotic-resistant strains that complicate the treatment process, allowing the infection to spread further. Therefore, it's necessary to develop further research regarding the discovery of drugs from natural ingredients in order to minimize side effects from use of antibiotics and other active ingredients. Coriander seeds contain several secondary metabolites such as Flavonoids, Tannins, Terpenoids and Saponins which act as antibacterial agents.

Objective: To determine the effectiveness of terpenoid inhibition in coriander seed fraction (Coriandrum sativum L.) against Staphylococcus aureus bacteria.

Method: Laboratory experimental study using the n-Hexane fractionation method by treating Staphylococcus aureus with coriander (Coriandrum sativum L.) seed fraction..

Result: The results showed based on the Greenwood classification, 50% concentration of 13.23 mm was classified as a weak category, a 75% concentration of 18.166 mm and 100% of 19.63 mm was included in the moderate category. inhibits Staphylococcus aureus bacteria. While the positive control measurement Ciprofloxacin with a diameter of 28.042 mm, was classified as having a strong sensitivity, while the negative control distilled water, had no sensitivity in inhibiting the growth of Staphylococcus aureus bacteria.

Conclusion: Coriander seed fraction (Coriandrum sativum L.) with a concentration of 50% had weak antibacterial activity and concentrations of 50% and 100% had moderate antibacterial activity against Staphylococcus aureus based on the Greenwood classification.

Keywords: Coriandrum sativum L., Staphylococcus aureus, infection

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