Phytochemical Test and Antibacterial Activity of Oil Palm Leaf Extract (*Elaeis Guineensis* Jacq.) as Sunscreen Cream

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Abstract

Indonesian tend to have oily skin, which has a high potential to cause acne. Acne, or acne vulgaris, is caused by several factors such as an increase in the amount of bacteria on the skin and the accumulation of oil that clogs pores, leading to inflammation. Sun exposure can also cause acne by inducing comedogenic peroxidation and inflammatory reactions. This study aims to formulate an anti-acne sunscreen from palm leaf extract, which has been proven to have antibacterial activity. The phytochemical testing includes tests for alkaloids, flavonoids, saponins, terpenoids, and tannins. The antibacterial activity test was conducted using the agar well diffusion method against the bacteria Propionibacterium acnes. The results of the phytochemical tests showed that the secondary metabolites found in the ethanol extract of palm leaves are flavonoids, alkaloids, saponins, terpenoids, and tannins. The results of the antibacterial activity test of the palm leaf extract cream in formulas F1 (1,5%), F2 (3%), and F3 (4,5%) showed moderate inhibitory activity with inhibition zones of 6,33 mm, 8,667 mm, and 10,317 mm, respectively, against Propionibacterium acnes. Based on the research results, it can be concluded that the cream with palm leaf extract has moderate activity against Propionibacterium acnes, with the F3 (4,5%) formulation showing the largest inhibition zone diameter.

Keywords

Oil Palm Leaf(s), Antibacterial, *Propionibacterium acnes*, *phytochemical test*, Sunscreen Cream