

ABSTRAK

FORMULASI DAN UJI AKTIVITAS KRIM *BODY SCRUB* KOMBINASI EKSTRAK LENGKUAS DAN SERBUK BAWANG PUTIH TERHADAP JAMUR *Malassezia furfur*

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Latar Belakang: Infeksi jamur kulit merupakan masalah kesehatan yang umum terjadi di Indonesia, salah satunya adalah penyakit panu yang disebabkan oleh jamur *Malassezia furfur* (*M. furfur*). Lengkuas (*Alpinia galanga* (L.) Willd) dan bawang putih (*Allium sativum* L.) diketahui mengandung senyawa aktif galangin dan allicin yang berefek antijamur terhadap *M. furfur*. Penelitian ini memformulasikan lengkuas dan bawang putih dalam bentuk *body scrub* berbasis krim untuk mempercepat penyembuhan panu. Emulgator trietanolamin dan asam stearat dalam formulasi krim dapat meningkatkan stabilitas fisik sediaan. Penelitian ini bertujuan untuk mengevaluasi sifat fisik, stabilitas, dan aktivitas antijamur *body scrub* terhadap *M. furfur*.

Metodologi: Krim *body scrub* diformulasikan dengan variasi konsentrasi trietanolamin 2%, 3%, 4% dan konsentrasi asam stearat 10%, 12%, 14%. Seluruh sediaan diuji sifat dan stabilitas fisik. Uji aktivitas antijamur terhadap *M. furfur* dilakukan pada krim formula terbaik, kontrol positif, kontrol negatif dan ekstrak kombinasi.

Hasil Penelitian: Seluruh formula memenuhi persyaratan sifat dan stabilitas fisik yang baik kecuali pada pH. F2 dipilih sebagai formula terbaik karena viskositas paling kecil serta daya sebar paling besar diharapkan berefek terapi yang diinginkan. Hasil uji aktivitas antijamur pada krim F2, kontrol positif, kontrol negatif dan ekstrak kombinasi menghasilkan diameter zona hambat berturut-turut sebesar 3,09; 5,80; 0,00; dan 3,99 mm.

Kesimpulan: Formula 2 dengan ekstrak etanol lengkuas 5%, serbuk bawang putih 2,5%, trietanolamin 3%, dan asam stearat 12% menghasilkan krim *body scrub* dengan sifat fisik yang baik, stabil, dan memiliki aktivitas antijamur terhadap *M. furfur* meskipun termasuk kategori lemah

Kata Kunci: Panu, Krim *Body scrub*, *Malassezia furfur*, Trietanolamin, Asam Stearat

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ABSTRACT

FORMULATION AND ACTIVITY TEST OF BODY SCRUB CREAM COMBINATION OF LENGKUAS EXTRACT AND GARLIC POWDER AGAINST THE FUNGUS *Malassezia furfur*

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Background: Fungal skin infections are a common health problem in Indonesia, one of which is tinea versicolor caused by the fungus *Malassezia furfur* (*M. furfur*). Galangal (*Alpinia galanga* (L.) Willd) and garlic (*Allium sativum* L.) are known to contain active compounds galangin and allicin that have antifungal effects against *M. furfur*. This study formulates galangal and garlic in the form of a cream-based body scrub to accelerate the healing of tinea versicolor. Emulgators triethanolamine and stearic acid in the cream formulation can improve the physical stability of the preparation. This study aims to evaluate the physical properties, stability, and antifungal activity of body scrub against *M. furfur*.

Methods: The body scrub cream was formulated with variations in triethanolamine concentration of 2%, 3%, 4% and stearic acid concentration of 10%, 12%, 14%. All preparations were tested for physical properties and stability. Antifungal activity test against *M. furfur* was conducted on the best cream formula, positive control, negative control and combination extracts.

Result: All formulas meet the requirements of good physical properties and stability except at pH. F2 was chosen as the best formula because the smallest viscosity and the largest spreadability are expected to have the desired therapeutic effect. The results of antifungal activity test on cream F2, positive control, negative control and combination extracts resulted in inhibition zone diameters of 3.09; 5.80; 0.00; and 3.99 mm, respectively.

Conclusion: Formula 2 with 5% galangal ethanol extract, 2.5% garlic powder, 3% triethanolamine, and 12% stearic acid produces body scrub cream with good physical properties, stable, and has antifungal activity against *M. furfur* even though it is in the weak category.

Keywords: Tinea versicolor, *Malassezia furfur*, Triethanolamine, Stearic Acid

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