ABSTRAK

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FORMULASI DAN EVALUASI KRIM ANTIJERAWAT EKSTRAK ETANOL 96% DAUN BANDOTAN (*Ageratum conyzoides* L.) TERHADAP *Staphylococcus epidermidis*

Karya Tulis Ilmiah, Fakultas Ilmu Kesehatan (2025)

(X + 64 halaman; 23 tabel; 14 gambar; 4 lampiran)

Jerawat (*Acne vulgaris)* adalah peradangan kronis yang terjadi pada kelenjar *sebaceous*. Penyebab utama jerawat ini adalah bakteri seperti *Propionibacterium acnes, Propionibacterium granulosum, Staphylococcus epidermidis,* dan *Malassezia furfur.* Daun bandotan (*Ageratum conyzoides* L.) mengandung bahan aktif seperti alkaloid, kumarin, tanin, saponin, flavonoid, dan minyak atsiri. Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri ekstrak daun bandotan dan mengetahui formulasi sediaan krim yang memenuhi persyaratan evaluasi sediaan krim. Penelitian ini meliputi pembuatan simplisia, ekstraksi, skrining fitokimia, uji antibakteri terhadap bakteri *Staphylococcus epidermidis*, formulasi krim, pembuatan krim daun bandotan dan evaluasi krim yang meliputi organoleptik, homogenitas, uji pH, uji daya sebar, uji daya lekat, uji viskositas, dan *cycling test*. Pengujian antibakteri menggunakan metode sumuran dengan beberapa sampel yaitu formulasi krim ekstrak daun bandotan dengan konsentrasi 2 %, 4% dan 8%, kontrol positif krim gentamicin sulfat 0,1% dan kontrol negatif basis krim, kemudian hasil tersebut dilakukan analisis data dengan menggunakan metode SPSS 27. Hasil uji antibakteri pada konsentrasi 2% sebesar 24,23 mm, konsentrasi 4% sebesar 18,35 mm dan konsentrasi 8% sebesar 25,53 mm. Basis dengan formulasi ke 2 mendapatkan hasil evaluasi yang memenuhi dari sebelum hingga setelah *cycling test*, sehingga dipilih untuk penambahan konsentrasi ekstrak etanol 96% daun bandotan.

Kata Kunci : Daun bandotan, *Staphylococcus epidermidis*, krim antibakteri
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ABSTRACT

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FORMULATION AND EVALUATION OF ANTI-ACNE CREAM FROM 96% ETHANOL EXTRACT OF BANDOTAN LEAVES (Ageratum conyzoides* L.*) AGAINST Staphylococcus epidermidis.
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Acne (Acne vulgaris) is a chronic inflammation that occurs in the sebaceous glands. The main cause of acne is bacteria such as Propionibacterium acnes, Propionibacterium granulosum, Staphylococcus epidermidis, and Malassezia furfur. Bandotan leaves (Ageratum conyzoides L.) contain active ingredients such as alkaloids, coumarins, tannins, saponins, flavonoids, and essential oils. This study aims to determine the antibacterial activity of bandotan leaf extract and determine the formulation of cream preparations that meet the requirements for evaluating cream preparations. This study includes the manufacture of simplicia, extraction, phytochemical screening, antibacterial test against Staphylococcus epidermidis bacteria, cream formulation, making bandotan leaf cream and cream evaluation including organoleptic, homogeneity, pH test, spreadability test, adhesion test, viscosity test, and cycling test. Antibacterial testing using the well method with several samples, namely the formulation of bandotan leaf extract cream with a concentration of 2%, 4% and 8%, positive control of 0.1% gentamicin sulfate cream and negative control of cream base, then the results were analyzed using the SPSS 27 method. The results of the antibacterial test at a concentration of 2% were 24.23 mm, a concentration of 4% was 18.35 mm and a concentration of 8% was 25.53 mm. The base with the 2nd formulation obtained evaluation results that met from before to after the cycling test, so it was chosen for the addition of 96% ethanol extract concentration of bandotan leaves.

Keywords : Bandotan leaves, Staphylococcus epidermidis, antibacterial cream

References : 56 (2000–2024)