

ABSTRAK

FORMULASI *CLAY MASK* EKSTRAK ETANOL DAUN BELIMBING WULUH (*Averrhoa bilimbi* L.) DAN UJI AKTIVITAS ANTIBAKTERI TERHADAP *Propionibacterium acnes*

Iswatun Khasanah¹, Sunarto², Eka Prasasti Nur Rachmani²

Latar Belakang : Jerawat merupakan penyakit inflamasi yang mempengaruhi folikel pilosebacea kulit. Salah satu penyebab jerawat tersebut yaitu terjadinya kolonisasi mikroba dengan *Propionibacterium acnes*. Penelitian ini bertujuan untuk memformulasikan *clay mask* ekstrak etanol daun belimbing wuluh dengan beberapa konsentrasi yang memenuhi persyaratan sifat fisik dan stabilitas serta memiliki aktivitas antibakteri terhadap *Propionibacterium acnes*.

Metodologi : Sediaan *clay mask* dibuat dengan variasi konsentrasi ekstrak sebesar 5%, 10% dan 15%. Sediaan *clay mask* diuji sifat fisik dan stabilitas fisik meliputi organoleptis, homogenitas, pH, viskositas, daya lekat, daya sebar dan stabilitas *freeze-thaw*. Formula terpilih diuji aktivitas antibakteri dengan metode difusi sumuran dan diameter zona hambat dianalisis dengan dibandingkan terhadap kontrol positif dan kontrol negatif.

Hasil Penelitian : Semua formulasi *clay mask* memenuhi kriteria evaluasi mutu fisik dan stabilitas. Formula *clay mask* ekstrak etanol daun belimbing wuluh pada konsentrasi 5%, 10% dan 15% memiliki aktivitas antibakteri terhadap *Propionibacterium acnes* dimana semakin banyak ekstrak, semakin kuat zona hambat yang dihasilkan.

Kesimpulan : *Clay mask* ekstrak etanol daun belimbing wuluh konsentrasi 15% memiliki aktivitas antibakteri paling baik terhadap *Propionibacterium acnes* sebesar 12,33 dan 10,17 mm dengan kategori kuat.

Kata Kunci : *Clay mask* , Ekstrak Etanol Daun Belimbing Wuluh (*Averrhoa bilimbi* L.), *Propionibacterium acnes*.

¹Mahasiswa Jurusan Farmasi Fakultas Ilmu-Ilmu Kesehatan Universitas Jenderal Soedirman

²Jurusan Farmasi Fakultas Ilmu-Ilmu Kesehatan Universitas Jenderal Soedirman

ABSTRACT

FORMULATION OF *CLAY MASK* ETHANOL EXTRACT OF CARAMBOLA LEAVES (*Averrhoa bilimbi* L.) AND ANTIBACTERIAL ACTIVITY TESTS ON *Propionibacterium acnes*

Iswatun Khasanah¹, Sunarto², Eka Prasasti Nur Rachmani²

Background : Acne is an inflammatory disease that affects the pilosebaceous follicles of the skin. One of the causes of acne is the colonization of microbes with *Propionibacterium acnes*. This study aims to formulate clay mask ethanol extract of belimbing wuluh leaves with several concentrations that meet the requirements for physical properties and stability and have antibacterial activity against *Propionibacterium acnes*.

Methodology : Clay mask preparations were made with variations in extract concentrations of 5%, 10% and 15%. The clay mask preparations were tested for physical properties and physical stability including organoleptic, homogeneity, pH, viscosity, adhesion, spreadability and freeze-thaw stability. The selected formula was tested for antibacterial activity using the well-diffusion method and the diameter of the inhibition zone was analyzed by comparison with the positive control and negative control.

Result : All clay mask formulations met the evaluation criteria for physical quality and stability. Clay mask formula with ethanol extract of belimbing wuluh leaves at a concentration of 5%, 10% and 15% has antibacterial activity against *Propionibacterium acnes* where the more extract, the stronger the inhibition zone is produced.

Conclusion : Clay mask ethanol extract of belimbing wuluh leaves concentration of 15% has the best antibacterial activity against *Propionibacterium acnes* of 12.33 and 10.17 mm in the strong category.

Keywords : Clay mask, Ethanol Extract of Belimbing Wuluh Leaves (*Averrhoa bilimbi* L.), *Propionibacterium acnes*.

¹Pharmacy Student, Faculty of Health Sciences, Jenderal Soedirman University

²Department of Pharmacy, Faculty of Health Sciences, Jenderal Soedirman University