

ABSTRAK

Nama : Nike Pratiwi
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Program Studi : Magister Sains Biomedis
Judul : Efek Pemberian Krim Ekstrak Kembang Telang terhadap Ekspresi *Interleukin-6* (IL-6), *Epidermal Growth Factor* (EGF) dan Re-epitelisasi Kulit dalam Penyembuhan Luka Insisi (Studi Eksperimental *In Vivo*).

Latar Belakang: Dalam dunia kedokteran, masyarakat masih memakai *povidone iodine* untuk penyembuhan luka. Perawatan luka terkontaminasi dengan larutan *povidone iodine* 10% sampai saat ini masih banyak digunakan. Namun dapat menyebabkan iritasi, alergi, residu, toksik pada sel. *Clitoria ternatea* L. dipertimbangkan sebagai alternatif alami. Penyembuhan luka dimediasi oleh berbagai jenis sel, sitokin, matriks dan *growth factor* (GF).

Tujuan: Penelitian ini bertujuan untuk menilai efek krim ekstrak *Clitoria ternatea* L pada ekspresi IL-6, EGF, dan re-epitelisasi pada luka tikus *Sprague Dawley*.

Metode: Penelitian *in vivo* menggunakan desain *post-test only control* pada tujuh kelompok perlakuan, termasuk kontrol tanpa luka, aquades, *povidone iodine*, basis krim, serta krim ekstrak *Clitoria ternatea* L. dengan konsentrasi 5%, 10%, dan 15%. Ekspresi IL-6 dan EGF dianalisis dengan pewarnaan imunohistokimia, dan re-epitelisasi menggunakan pewarnaan *Hematoksilin Eosin*.

Hasil: Penelitian menunjukkan bahwa *Clitoria ternatea* L meningkatkan ekspresi IL-6 dan EGF, dengan ekspresi kuat tertinggi pada konsentrasi 10% untuk IL-6 dan EGF dan reepitelisasi.

Kesimpulan: Krim ekstrak *Clitoria ternatea* L 10% memberikan hasil yang sama baiknya dengan *povidone iodine* pada luka insisi tikus.

Kata kunci : *Clitoria ternatea* L, *epidermal growth factor*, *interleukin-6*, re-epitelisasi, *wound healing*.

ABSTRACT

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Study Program : Master of Biomedical Science
Title : Effects of Telang Flower Extract Cream on Interleukin-6 (IL-6) Expression, Epidermal Growth Factor (EGF) and Skin Re-epithelialization in Incisional Wound Healing (In Vivo Experimental Study). In Vivo Experimental Study).

Background: In the world of medicine, people still use povidone iodine for wound healing. Treatment of contaminated wounds with 10% povidone iodine solution is still widely used. However, it turns out that it can cause irritation, allergies, residue, and toxicity to *Clitoria ternatea* L. cells. It is considered a natural alternative. Wound healing is mediated by various types of cells, cytokines, matrix and growth factors (GF).

Objective: This study aimed to assess the effects of *Clitoria ternatea* L. extract cream on the expression of IL-6, EGF, and re-epithelialization in Sprague Dawley rat wounds.

Methods: In vivo study using post-test only control design on seven treatment groups, including no-wound control, distilled water, povidone iodine, cream base, and *Clitoria ternatea* L. extract cream with 5%, 10%, and 15% concentrations. IL-6 and EGF expression was analyzed by immunohistochemical staining, and re-epithelialization using Hematoxylin Eosin staining.

Results: The study showed that *Clitoria ternatea* L increased the expression of IL-6 and EGF, with the highest strong expression at a concentration of 10% for IL-6 and EGF and reepithelialization.

Conclusion: *Clitoria ternatea* L 10% extract cream gave the same good results as povidone iodine on rat incision wounds.

Keywords: *Clitoria ternatea* L, epidermal growth factor, interleukin-6, re-epithelialization, wound healing.