Wound Healing Activity of Galam Flower (Melaleuca cajuputi subsp. Cumingiana (Turcz.) Barlow) Methanol Extract in Wistar Rats

Kartika Veranisa Putri[1], Ika Novitasari[1], Hilma Wardatina[1], Lilis Tangkeallo[1], Muhammad Dawud Ashari[1], Isnaini[2*]

[1]Undergraduate Program, Faculty of Medicine, ULM Banjarmasin, South Kalimantan, Indonesia.
[2]Department of Pharmacology, Medical Study Program Undergraduate Program, Faculty of Medicine, ULM Banjarmasin, South Kalimantan Indonesia

*)Corresponding author:
E-mail: isnaini@ulm.ac.id

Abstract

Wound is an incontinence condition of skin or mucosal epithelial tissue due to physical or thermal damage. One of the wound therapies can use plants or compounds that are antiseptic or anti-bacterial, in addition to being anti-inflammatory and re-epithelializing. The plant that has the potential as a wound healing is galam (Melaleuca cajuputi subsp. Cumingiana (Turcz.) Barlow). Galam flower methanol extract has antibacterial activity with a minimum inhibitory level of 1.7 mg/mL. This research analyze the wound healing activity of galam flower extract in Wistar strain rats that were initiated by the wound seen from the histology of the rat skin. This research uses posttest only method with control group design. Thirty wistar rats were divided into five groups consisting of a positive control group, a negative control group, 1% galam flower extract gel, 2% galam flower extract gel, and 4% galam flower extract gel. Based on histological data, the positive control treatment group and 4% gel treatment group gave the same results. Both indicate that the skin tissue has begun to connect. The conclusions the three galam flower methanol extract gel formulas showed wound healing activity and the 4% galam flower methanol extract gel gave the greatest wound healing activity.

Keywords*: Melaleuca cajuputi subsp. Cumingiana (Turcz.) Barlow, antibacterial activity, wound initiated healing*