

Research article

Wound healing activity of *Saurauia vulcani*, Korth. aqueous leaves extract evaluation on excision wound in hyperglycemia rats

Grace Anastasia br Ginting^{1*}, Rosidah¹, Panal Sitorus², Denny Satria²

¹Department of Pharmacology, Faculty of Pharmacy, Universitas Sumatera Utara, Medan, 20155, Indonesia.

²Department of Pharmaceutical Biology, Faculty of Pharmacy, University of Sumatera Utara, Medan, Indonesia.

Key words: Excision wound, *Saurauia vulcani*, Korth., Oral Treatment, Hyperglycemia.

***Corresponding Author:** Grace Anastasia br Ginting, Department of Pharmacology, Faculty of Pharmacy, Universitas Sumatera Utara, Medan, 20155, Indonesia.

Abstract

Objectives: This study investigated wound healing activity of oral treatment with *Saurauia vulcani*, Korth. aqueous leaves extract on excision wound in hyperglycemia male wistar rats. **Methods:** Diabetes mellitus was induced in rats by intraperitoneal injection of a single dose of streptozotocin (STZ, 55 mgkg⁻¹ b.wt.). Three days after induction, full thickness excision wound were made in hyperglycemia rats and were divide in groups, each containing 5 rats. The different test group animals were treated with aqueous extract of *Saurauia vulcani*, Korth. leaves (AESVKL) 0.25 mL, 0.5 mL and 1 mL orally and compared with conventional drug Metformin for 15 days. The wound healing in hyperglycemia rats was studied by measuring blood glucose and wound healing in both control and treated groups. The means of wound area measurement between groups at different time intervals were compared using ANOVA test. **Results:** Oral treatment of AESVKL decreased blood glucose levels and on excision wounds caused the significantly faster reduction in the wound area as compared to Metformin. **Conclusions:** Findings of the present study provide a baseline data on excision wound healing and potential of *Saurauia vulcani*, Korth. Leaves to reduce glucose plasma in hyperglycemia rats and supports their traditional claim.