

## INTISARI

**YULIANI, M.P., 2018, UJI AKTIVITAS ANTIDIABETES KOMBINASI EKSTRAK AIR DAUN STEVIA (*Stevia rebaudiana* Bertoni) DAN EKSTRAK AIR DAUN LIDAH BUAYA (*Aloe vera* L.) PADA TIKUS PUTIH JANTAN YANG DIINDUKSI ALOKSAN, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.**

Daun stevia mengandung steviosid dan daun lidah buaya mengandung alkaloid, saponin, dan glikosida aloe emodin terbukti dapat menurunkan kadar glukosa darah (KGD). Tujuan penelitian ini adalah mengetahui aktivitas kombinasi ekstrak daun stevia dan ekstrak daun lidah buaya dalam menurunkan kadar glukosa darah tikus putih jantan diinduksi aloksan.

Penelitian ini menggunakan 35 ekor tikus dibagi menjadi 7 kelompok. Kelompok I kontrol normal, II kontrol positif, III kontrol negatif, IV ekstrak daun stevia 400 mg/ kgBB, V ekstrak daun lidah buaya 400 mg/ kgBB, VI kombinasi ekstrak daun stevia 25%:ekstrak daun lidah buaya 75%, VII kombinasi ekstrak daun stevia 50%:ekstrak daun lidah buaya 50%. Pemberian sediaan uji dilakukan 14 hari secara per oral setelah diinduksi aloksan 140 mg/kgBB secara i.p, kecuali pada kelompok I. Pengukuran KGD dilakukan pada hari 0, 3, 7, 14 menggunakan metode glukosa oksidase (GOD-PAP). Data kadar glukosa darah dianalisis dengan uji *one way* ANOVA ( $p < 0,05$ ).

Kombinasi ekstrak daun stevia dan ekstrak daun lidah buaya terbukti memiliki aktivitas antidiabetes. Kombinasi ekstrak daun stevia 25%:ekstrak daun lidah buaya 75% penurunan KGD sebesar 46,34%. Kombinasi 50%:50% sebesar 31,04%.Pengukuran KGD ekstrak daun lidah buaya tunggal dan kombinasi ekstrak air daun stevia 25%:ekstrak daun lidah buaya 75% memiliki aktivitas penurunan KGD yang setara dan kombinasi 50%:50% setara dengan ekstrak daun stevia tunggal.

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Kata kunci : diabetes, daun stevia, daun lidah buaya, kombinasi, GOD-PAP

## ABSTRACT

**YULIANI, M.P., 2018, ANTIDIABETIC ACTIVITY TEST ON COMBINED STEVIA (*Stevia rebaudiana* Bertoni) AND ALOE VERA (*Aloe vera* L.) LEAVES WATER EXTRACTS ON ALLOXANE-INDUCED MALE WHITE RATS, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.**

Stevia has steviosid and aloe vera have alkaloids, saponin, and glikosida aloe emodin evidently decrease blood glucose level (BGL). The objective of research was to find out the activity of combined stevia and aloe vera leaves water extracts in lowering BGL in alloxane-induced male white rat.

This research employed 35 rats divided into 7 groups: I normal control, II positive control, III negative control, IV stevia leaves extract 400 mg/ kgBW, V aloe vera leaves extract 400 mg/ kgBW, VI combined stevia 25%:aloe vera leaves extracts 75%, and VII combined stevia 50%:aloe vera leaves extracts 50%. The administration of tested preparation was conducted per oral for 14 days after having been induced with alloxane 140 mg/kg BW i.p, except in group I. The measurement of BGL was conducted on days 0, 3<sup>th</sup>, 7<sup>th</sup>, 14<sup>th</sup> using glucose oxidase method (GOD-PAP). Data of blood glucose level was measured using one way ANOVA test ( $p < 0,05$ ).

Combination of stevia leaves extract and aloe vera leaves extract evidently decrease BGL. Combination of stevia leaves extract 25%:aloe vera leaves extract 75% decrease BGL 46,34% and 50%:50% decrease 31,04%. BGL measurements showed single aloe vera leaves extract and combined stevia 25% : aloe vera leaves extracts 75% had equal activity of decreasing BGL, combined 50%:50% had equal activity of decreasing BGL.

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Keywords: diabetes, stevia leaves, aloe vera leaves, combination, GOD-PAP