

## INTISARI

**FRISTICA, M.S., UJI EFEK ANTHIHIPERGLIKEMIK KOMBINASI EKSTRAK ETANOLIK DAUN SALAM (*Eugenia polyantha* Wight) DAN DAUN JAMBU BIJI (*Psidium guajava* L.) PADA MENCIT JANTAN YANG DIINDUKSI ALOKSAN, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI SURAKARTA.**

Daun salam (*Eugenia polyantha* Wight) dan daun jambu biji (*Psidium guajava* L.) merupakan bagian tanaman yang digunakan sebagai obat antidiabetes. Penelitian ini bertujuan untuk mengetahui pengaruh dan kombinasi dosis ekstrak etanolik daun salam dan daun jambu biji yang setara dengan kontrol positif (glibenklamid) dalam penurunan kadar glukosa darah pada mencit yang diinduksi aloksan.

Penelitian ini dilakukan dengan menggunakan 35 mencit putih jantan, umur 3-4 bulan, berat badan 20-30 gram. Mencit dibuat diabetes menggunakan aloksan secara intraperitoneal. Semua mencit dibagi 7 kelompok, masing-masing terdiri dari 5 ekor mencit yang meliputi kelompok I: kontrol negatif (CMC 0,5%), kelompok II: kontrol positif (glibenklamid), kelompok III: ekstrak daun salam (2,62 mg/20 g bb), kelompok IV: ekstrak daun jambu biji (0,7 mg/20 g bb), dan 3 kelompok kombinasi ekstrak daun salam dan daun jambu biji (1,96 mg/20 g bb:0,87 mg/20 g bb; 1,31 mg/20 g bb:1,75 mg/20 g bb; 0,65 mg/20 g bb:2,62 mg/20 g bb). Kadar glukosa darah diamati pada hari ke 3, 7, dan 14, diukur dengan alat glucometer GlucoDr. Hasil penelitian kadar glukosa darah dianalisis dengan ANOVA satu jalan ( $p < 0,05$ ), dilanjutkan *Post Hoc test*.

Hasil penelitian menunjukkan pemberian dosis kombinasi daun salam dan daun jambu biji dapat menurunkan kadar glukosa darah. Semua dosis kombinasi ekstrak daun salam dan daun jambu biji (1,96 mg/20 g bb:0,87 mg/20 g bb; 1,31 mg/20 g bb:1,75 mg/20 g bb; 0,65 mg/20 g bb:2,62 mg/20 g bb) memberikan efek setara dengan glibenklamid pada mencit jantan yang diinduksi aloksan.

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Kata kunci: *Eugenia polyantha* Wight, *Psidium guajava* L, aloksan, glukosa darah, antihiperqlikemik

## ABSTRACT

**FRISTICA, M.S., TEST OF ANTIHYPERGLYCEMIC EFFECT COMBINATION OF BAY (*Eugenia polyantha* Wight) LEAF AND GUAVA (*Psidium guajava* L.) LEAF ETHANOLIC EXTRACTS ON ALLOXAN-INDUCED MALE MICE, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.**

Bay (*Eugenia polyantha* Wight) and guava (*Psidium guajava* L.) leaves are part of plants which used as antidiabetic drug. This study was aimed to determine effect and dose combination of bay leaf and guava leaf ethanolic extracts which equal with positive control (glibenclamide) in blood glucose level decrease in alloxan-induced mice.

The study was conducted using 35 white male mice, swiss, age 3-4 months, weight 20-30 grams. Mice were made diabetic using alloxan by intraperitoneal. All mice were divided 7 groups, each consisting 5 mice which include group I: negative control (CMC 0,5%), group II: positive control (glibenclamide), group III: bay leaf extract (2,62 mg/20 g bb), group IV: guava leaf extract (0,7 mg/20 g bb), and 3 combination groups of bay leaf and guava leaf extracts (1,96 mg/20 g bw:0,87 mg/20 g bw; 1,31 mg/20 g bw:1,75 mg/20 g bw; 0,65 mg/20 g bw:2,62 mg/20 g bw). Blood glucose levels were observed on 3<sup>rd</sup>, 7<sup>th</sup>, and 14<sup>th</sup> days, measured with GlucoDr glucometer. The blood glucose levels were analyzed by one way ANOVA ( $p < 0.05$ ), followed by post hoc test.

The research result was showed dose administration of combination of bay leaf and guava leaf could lower blood glucose level in mice which induced alloxan. All combination doses of bay leaf and guava leaf extracts (1,96 mg/20 g bw: 0,87 mg/20 g bb; 1,31 mg/20 g bw: 1,75 mg/20 g bb; 0,65 mg/20 g bw: 2,62 mg/20 g bw) gave equal effect with glibenclamide in alloxan-induced male mice.

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Keywords : *Eugenia polyantha* Wight, *Psidium guajava* L, alloxan, blood glucose