

**UJI EFEKTIVITAS EKSTRAK ETANOL DAUN JAMBU JAMAICA
(*Syzygium malaccense* (L.) Merr. & L.M.Perry) TERHADAP PENURUNAN
TEKANAN DARAH PADA TIKUS JANTAN HIPERTENSI**

ABSTRAK

Hipertensi adalah penyakit kardiovaskular yang disebabkan oleh peningkatan curah jantung dan resistensi perifer, yang berkontribusi terhadap tekanan darah. Di Indonesia, penggunaan obat herbal sebagai terapi alternatif terus berkembang, termasuk pemanfaatan daun jambu jamaika (*Syzygium malaccense* (L.) Merr. & L.M.Perry). Analisis metabolit sekunder menunjukkan bahwa daun ini mengandung senyawa aktif seperti myricitrin, quercetin, fenolik, karotenoid, p-cymene, (-)- β -caryophyllene, (-)- β -pinene, α -terpineol, dan reserpin. Penelitian ini bertujuan untuk mengevaluasi efek ekstrak etanol daun jambu jamaika dalam menurunkan tekanan darah pada tikus putih jantan yang mengalami hipertensi. Tikus berusia 3-4 bulan dengan berat 170-210 g diinduksi hipertensi menggunakan prednison 5 mg/kgBB dan NaCl 8% secara oral selama 14 hari. Sebanyak 30 tikus dibagi menjadi enam kelompok: kontrol negatif, kontrol positif, kelompok pembanding (captopril 12,5 mg), serta tiga kelompok perlakuan dengan ekstrak daun jambu jamaika dosis 50, 100, dan 200 mg/kgBB. Ekstrak diberikan secara oral selama 7 hari. Parameter yang diukur meliputi Tekanan Darah Sistolik (TDS), Tekanan Darah Diastolik (TDD), Tekanan Arteri Rata-rata (TAR), dan Laju Jantung (LJ) menggunakan metode non-invasif CODA pada hari ke-1, 3, dan 7 setelah pemberian. Analisis data dilakukan dengan ANOVA dua arah dan uji Duncan's. Hasil penelitian menunjukkan bahwa dosis dan lama pemberian ekstrak berpengaruh secara signifikan menurunkan TDS, TDD, TAR, dan LJ ($P < 0,05$). Dari hasil diatas menunjukkan bahwa ekstrak etanol daun jambu jamaika berpotensi dalam menurunkan tekanan darah.

Kata Kunci: Anti-hipertensi, daun jambu jamaika (*Syzygium malaccense* (L.) Merr. & L.M.Perry), prednison, dan natrium klorida

EFFECTIVENESS TEST OF ETHANOL EXTRACT OF JAMAICAN GUAVA LEAVES (*Syzygium malaccense* (L.) Merr. & L.M.Perry) ON REDUCING BLOOD PRESSURE IN MALE HYPERTENSIVE RATS

ABSTRACT

Hypertension is a cardiovascular disease caused by increased cardiac output and peripheral resistance, both of which contribute to blood pressure regulation. In Indonesia, the use of herbal medicine as an alternative therapy continues to develop, including the utilization of Malay apple (*Syzygium malaccense* (L.) Merr. & L.M.Perry) leaves. Secondary metabolite analysis has identified active compounds such as myricitrin, quercetin, phenolics, carotenoids, *p*-cymene, (-)- β -caryophyllene, (-)- β -pinene, α -terpineol, and reserpine in these leaves. This study aims to evaluate the effect of ethanol extract from *Syzygium malaccense* leaves on blood pressure reduction in hypertensive male Wistar rats. Rats aged 3–4 months, weighing 170–210 g, were induced with hypertension by oral administration of prednisone (5 mg/kgBW) and NaCl 8% for 14 days. A total of 30 rats were divided into six groups: negative control, positive control, reference group (captopril 12.5 mg), and three treatment groups receiving *Syzygium malaccense* leaf extract at doses of 50, 100, and 200 mg/kgBW. The extract was administered orally for seven days. Measured parameters included Systolic Blood Pressure (SBP), Diastolic Blood Pressure (DBP), Mean Arterial Pressure (MAP), and Heart Rate (HR), assessed using the non-invasive CODA method on days 1, 3, and 7 post-administration. Data were analyzed using two-way ANOVA followed by Duncan's test. The results showed that the dose and duration of extract significantly reduced SBP, DBP, MAP, and HR ($P < 0.05$). These findings suggest that the ethanol extract of *Syzygium malaccense* leaves has the potential to lower blood pressure.

Keywords: Antihypertensive, *Syzygium malaccense* leaves, prednisone, sodium chloride