

UJI EFEKTIVITAS EKSTRAK ETANOL DAUN JERUK NIPIS (*Citrus aurantifolia*) TERHADAP PENURUNAN TEKANAN DARAH PADA TIKUS HIPERTENSI

ABSTRAK

Daun jeruk nipis (*Citrus aurantifolia*) mengandung senyawa aktif seperti *rutin*, *kaempferol*, dan *d-limonene* yang berpotensi sebagai antihipertensi. Penelitian ini bertujuan untuk mengetahui pengaruh ekstrak etanol daun jeruk nipis dengan variasi dosis dan lama pemberian terhadap penurunan tekanan darah tikus hipertensi yang diinduksi prednison 5 mg/kg BB dan NaCl 8% secara oral selama 14 hari. Tikus dibagi dalam 6 kelompok, yaitu kelompok kontrol negatif (tidak diinduksi hipertensi), kelompok kontrol positif, kelompok pembanding, dan 3 kelompok ekstrak uji dengan dosis 50 mg/kg BB, 100 mg/kg BB, dan 200 mg/kg BB. Perlakuan diberikan selama 7 hari. Pengukuran tekanan darah sistolik, diastolik, arteri rata-rata, dan laju jantung dilakukan pada hari ke-0, 1, 3, dan 7 menggunakan alat CODA[®]. Data dianalisis dengan ANOVA dua arah dan uji lanjutan Duncan. Hasil penelitian menunjukkan ekstrak etanol daun jeruk nipis berpengaruh signifikan ($p < 0,05$) terhadap nilai tekanan darah (sistolik, diastolik, arteri rata-rata) dan laju jantung, dengan dosis 50 mg/kgBB menghasilkan penurunan terbesar. Lama pemberian juga berpengaruh signifikan ($p < 0,05$), dengan penurunan terbesar pada hari ke-7. Hasil penelitian menunjukkan bahwa ekstrak etanol daun jeruk nipis efektif dalam menurunkan tekanan darah.

Kata kunci: Antihipertensi, *Citrus aurantifolia*, daun jeruk nipis, tekanan darah

EFFECTIVENESS TEST OF ETHANOL EXTRACT OF LIME LEAVES (*Citrus aurantifolia*) ON REDUCING BLOOD PRESSURE IN HYPERTENSIVE RATS

ABSTRACT

Lime leaves (*Citrus aurantifolia*) contain active metabolite compounds such as *rutin*, *kaempferol*, and *d-limonene*, which have potential antihypertensive properties. This study was conducted to effect ethanol extract of lime leaves with variations in dose and duration of administration on reducing blood pressure in hypertensive rats induced with 5 mg/kg BB of prednisone and 8% NaCl orally for 14 days. The rats were divided into 6 groups: a negative control group (not induced with hypertension), a positive control group, a comparison group, and 3 experimental groups treated with doses of 50 mg/kg BB, 100 mg/kg BB, and 200 mg/kg BB. Treatments were given for 7 days. Systolic blood pressure, diastolic blood pressure, mean arterial pressure, and heart rate were measured on days 0, 1, 3, and 7 using a CODA[®] device. The data were analyzed using two-way ANOVA and Duncan's post hoc test. The results showed that the ethanol extract of lime leaves significantly affected blood pressure (systolic, diastolic, mean arterial pressure) and heart rate ($p < 0.05$), with the 50 mg/kg BB dose resulting in the greatest reduction. The duration of administration also had a significant effect ($p < 0.05$), with the greatest reduction observed on day 7. The result of study that the ethanol extract of lime leaves is effective in reducing blood pressure.

Keywords: Antihypertensive, *Citrus aurantifolia*, lime leaves, blood pressure