

UJI EFEKTIVITAS INFUSA DAUN PALA (*Myristica fragrans* Houtt.) TERHADAP PENURUNAN TEKANAN DARAH PADA MENCIT PUTIH JANTAN HIPERTENSI

ABSTRAK

Daun pala (*Myristica fragrans* Houtt.) mengandung senyawa metabolit sekunder seperti dihydrokaempferol, eugenol, d-limonene yang diduga berperan dalam menurunkan tekanan darah. Penelitian ini bertujuan untuk mengetahui efektivitas infusa daun pala terhadap penurunan tekanan darah pada mencit putih jantan hipertensi. Sebanyak 30 ekor mencit berusia 2-3 bulan dengan berat badan 20-30g diinduksi hipertensi menggunakan prednisone 5 mg/kgBB dan NaCl 8% secara oral selama 14 hari, kemudian dibagi menjadi enam kelompok, yaitu kontrol negatif, kontrol positif, pembanding (lisinopril 5 mg), dan kelompok infusa daun pala konsentrasi 2,5%, 5%, dan 10%. Infusa daun pala 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 perlakuan. Analisis data dilakukan dengan ANOVA dua arah dan uji Duncan's. Hasil penelitian menunjukkan bahwa variasi konsentrasi infusa daun pala berpengaruh signifikan terhadap tekanan darah TDS, TDD, TAR, dan LJ ($P < 0,05$) dan lama pemberian berpengaruh signifikan terhadap TDS, TDD dan TAR ($p < 0,05$), namun tidak berpengaruh signifikan terhadap LJ ($p > 0,05$). Dari hasil diatas menunjukkan bahwa infusa daun pala berpotensi dalam menurunkan tekanan darah.

Kata Kunci: Anti hipertensi, *Myristica fragrans* Houtt, daun pala, tekanan darah

A STUDY ON THE EFFECTIVENESS OF NUTMEG LEAF (*Myristica fragrans* Houtt.) INFUSION IN REDUCING BLOOD PRESSURE IN MALE HYPERTENSIVE WHITE MICE

ABSTRACT

Nutmeg leaves (*Myristica fragrans* Houtt.) contain secondary metabolites such as dihydrokaempferol, eugenol, and d-limonene, which are believed to play a role in lowering blood pressure. This study aimed to determine the effectiveness of nutmeg leaf infusion in lowering blood pressure in male hypertensive white mice. A total of 30 mice aged 2–3 months and weighing 20–30 g were induced to develop hypertension by administering 5 mg/kg body weight of prednisone and 8% NaCl orally for 14 days, and were then divided into six groups: negative control, positive control, comparator (5 mg lisinopril), and nutmeg leaf infusion groups at concentrations of 2.5%, 5%, and 10%. The nutmeg leaf infusion was administered orally for 7 days. The parameters measured included systolic blood pressure (SBP), diastolic blood pressure (DBP), mean arterial pressure (MAP), and heart rate (HR) using the non-invasive CODA method on days 1, 3, and 7 after treatment. Data analysis was performed using two-way ANOVA and Duncan's test. The results showed that variations in nutmeg leaf infusion concentration had a significant effect on SBP, DBP, MAP, and HR ($P < 0.05$), and that the duration of administration had a significant effect on SBP, DBP, and MAP ($P < 0.05$), but no significant effect on HR ($P > 0.05$). The above results indicate that nutmeg leaf infusion has the potential to lower blood pressure.

Keywords: Antihypertensive, *Myristica fragrans* Houtt, nutmeg leaf, blood pressure