

**EFEKTIVITAS EKSTRAK TEH HIJAU (*Camellia sinensis* L.)
TERHADAP PENURUNAN KADAR KOLESTEROL TOTAL
TIKUS WISTAR (*Rattus norvegicus*) DIABETES YANG
DIINDUKSI ALOKSAN**

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Abstrak

Teh Hijau (*Camellia sinensis* L.) mengandung senyawa flavonoid, bekerja sebagai anti dislipidemia akibat hiperglikemia kronik penyakit diabetes. Penelitian ini bertujuan untuk mengetahui efektivitas ekstrak teh hijau terhadap penurunan kadar kolesterol total tikus Wistar diabetes yang diinduksi aloksan. Desain penelitian ini adalah true experimental. Sampel 30 ekor tikus putih jantan galur Wistar, berumur 8-12 minggu, berat \pm 200 g. Pemberian ekstrak teh hijau dosis 200, 400, dan 800 mg/kg berat badan, dan kontrol negatif diberi aloksan, serta kontrol positif diberi simvastatin. Kelompok perlakuan kecuali kelompok normal diinjeksikan aloksan dosis 125 mg/kg berat badan secara intraperitoneal dan pakan tinggi lemak. Setelah 3 hari darah dari ekor diukur glukosa menggunakan glukometer dan kolesterol dengan spektrofotometer $\lambda=546$ nm, pemberian ekstrak teh hijau selama 16 hari peroral, lalu pengukuran kembali kolesterol darah dari ekor. Hasil uji T berpasangan menunjukkan terdapat penurunan kadar kolesterol total setelah perlakuan ($p=0,000$). Uji One Way Anova menunjukkan terdapat efektivitas ekstrak teh hijau terhadap penurunan kadar kolesterol total ($p= 0,000$). Hasil uji Post-Hoc Bonferroni menunjukkan pemberian ekstrak teh hijau dosis 400 mg/kgBB sebanding dengan simvastatin ($p= 0,453$) yang paling baik menurunkan kadar kolesterol total mendekati nilai normal.

Kata Kunci : Aloksan, Diabetes, Teh Hijau, Kolesterol Total

THE EFFECTIVENESS OF GREEN TEA EXTRACT (*Camellia sinensis L.*) TO DECREASE THE LEVEL OF TOTAL CHOLESTEROL IN ALLOXAN INDUCED DIABETIC WISTAR RATS (*Rattus norvegicus*)

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Abstract

*Green Tea (*Camellia sinensis L.*) contains flavonoid compounds, works as an anti-dyslipidemia due to chronic hyperglycemia of diabetes. This study aims to determine the effectiveness of green tea extracts on reducing total cholesterol levels in alloxan-induced Wistar diabetic rats. The design of this study is true experimental. Samples were 30 male white Wistar rats, aged 8-12 weeks, weighing ± 200 g. Green tea extract doses of 200, 400, and 800 mg / kg body weight, and negative controls were given alloxan, and positive controls were given simvastatin. The treatment group except the normal group was injected with a dose of 125 mg / kg alloxan intraperitoneally and high-fat feed. After 3 days blood from the tail was measured glucose using a glucometer and cholesterol with a spectrophotometer $\lambda = 546$ nm, giving green tea extract for 16 days orally, then re-measuring blood cholesterol from the tail. The paired T test results showed there was a decrease in total cholesterol levels after treatment ($p = 0,000$). One Way Anova test showed that there was an effectiveness of green tea extract to reduce total cholesterol level ($p=0,000$). Post-Hoc Bonferroni test results exhibited giving green tea extract a dose of 400 mg / kg comparable to simvastatin ($p=0.453$) that best for reduce total cholesterol levels close to normal values.*

Keywords : Alloxan, Diabetic, Green Tea, Total Cholesterol