

**PENGARUH PEMBERIAN TEPUNG DAUN KACA PIRING
(*Gardenia jasminoides* J. Ellis) TERHADAP KADAR TRIGLISERIDA,
HDL, DAN INDEKS ATEROGENIK PADA TIKUS PUTIH *WISTAR*
(*Rattus norvegicus* sp.) SINDROM METABOLIK**

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ABSTRAK

Latar Belakang: Sindrom metabolik ditandai dengan dislipidemia berupa peningkatan trigliserida, penurunan kadar HDL, dan peningkatan indeks aterogenik plasma (*Atherogenic Index of Plasma/AIP*) yang meningkatkan risiko kardiovaskular. Daun kaca piring (*Gardenia jasminoides* J. Ellis) mengandung flavonoid, saponin, geniposida, dan polifenol yang berpotensi memperbaiki profil lipid.

Tujuan: Menganalisis pengaruh pemberian tepung daun kaca piring terhadap kadar trigliserida, HDL, dan AIP tikus putih *Wistar* sindrom metabolik.

Metode: Penelitian eksperimental murni dengan rancangan *pretest-posttest control group design* pada 24 tikus jantan galur *Wistar* yang diinduksi *streptozotocin-nicotinamide*, dibagi menjadi kelompok kontrol sehat, kontrol diabetes, acarbose, dan tepung daun kaca piring (25g/kgBB/hari secara *oral gavage* selama 28 hari). Data dianalisis menggunakan Shapiro-Wilk, Levene's Test, One Way/Welch ANOVA, Kruskal-Wallis, Repeated Measures ANOVA, dan Wilcoxon Signed-Rank Test ($\alpha=0,05$).

Hasil: Tepung daun kaca piring menurunkan trigliserida sebesar 38,6%, meningkatkan HDL sebesar 124,6% dan menurunkan AIP sebesar 87,7%, dengan besar perubahan yang melampaui kelompok acarbose.

Kesimpulan: Tepung daun kaca piring efektif memperbaiki profil lipid tikus *Wistar* sindrom metabolik dan berpotensi dikembangkan sebagai alternatif terapi herbal untuk menurunkan risiko kardiovaskular.

Kata kunci: Daun kaca piring; trigliserida; HDL; indeks aterogenik; sindrom metabolik.

**THE EFFECT OF GARDENIA LEAF (*Gardenia jasminoides* J. Ellis)
POWDER ADMINISTRATION ON TRIGLYCERIDE LEVELS, HDL
LEVELS, AND ATHEROGENIC INDEX IN WISTAR RATS (*Rattus
norvegicus* sp.) WITH METABOLIC SYNDROME**

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ABSTRACT

Background: Metabolic syndrome is characterized by dyslipidemia, marked by elevated triglycerides, decreased HDL, and an increased Atherogenic Index of Plasma (AIP), which raise cardiovascular risk. Gardenia leaf (*Gardenia jasminoides* J. Ellis) contains flavonoids, saponins, geniposide, and polyphenols with potential to improve lipid profiles.

Objective: To analyze the effect of Gardenia leaf flour on triglyceride, HDL, and AIP levels in metabolic syndrome *Wistar* rats.

Methods: A true experimental study with a pretest-posttest control group design was conducted on 24 male *Wistar* rats induced with streptozotocin-nicotinamide, divided into healthy control, diabetic control, acarbose, and Gardenia leaf flour groups (25g/kgBW/day via oral gavage for 28 days). Data were analyzed using Shapiro-Wilk, Levene's Test, One Way/Welch ANOVA, Kruskal-Wallis, Repeated Measures ANOVA, and the Wilcoxon Signed-Rank Test ($\alpha=0.05$).

Results: Gardenia leaf flour reduced triglycerides by 38.6%, increased HDL by 124.6%, and lowered AIP by 87.7%, exceeding the magnitude of change observed in the acarbose group.

Conclusion: Gardenia leaf flour effectively improved the lipid profile of metabolic syndrome *Wistar* rats and has potential as an alternative herbal therapy to reduce cardiovascular risk.

Keywords: Gardenia leaf flour; triglycerides; HDL; atherogenic index; metabolic syndrome.