

**PENGARUH PEMBERIAN EKSTRAK ETANOL AKAR PURWOCENG
(*Pimpinella pruatjan* Molk.) SECARA AKUT TERHADAP KADAR SGOT
DAN SGPT PADA TIKUS PUTIH (*Rattus norvegicus*) JANTAN**

Uji Toksisitas Akut

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ABSTRAK

Latar belakang: Purwoceng (*Pimpinella pruatjan* Molk.) merupakan tanaman obat tradisional yang digunakan secara turun temurun sebagai afrodisiak. Purwoceng mengandung zat-zat lipofilik yang berpotensi toksik pada hepatosit, dan mengakibatkan peningkatan kadar SGOT DAN SGPT.

Tujuan: Penelitian ini bertujuan untuk menganalisis pengaruh pemberian ekstrak etanol akar purwoceng (*Pimpinella pruatjan* Molk.) secara akut terhadap kadar SGOT dan SGPT pada tikus putih (*Rattus norvegicus*) jantan.

Metode: Penelitian ini merupakan penelitian eksperimental dengan *post-test only with control group design*. Lima belas tikus putih jantan dibagi dalam lima kelompok perlakuan secara acak. Kelompok A (kontrol diberi akuades), kelompok B (5 mg/kgBB), kelompok C (50 mg/kgBB), kelompok D (300 mg/kgBB), dan kelompok E (2000 mg/kgBB) diberikan ekstrak etanol akar purwoceng dosis tunggal. Setelah 24 jam pemberian dosis, darah tikus diambil dari sinus orbitalis. Kadar SGOT dan SGPT dianalisis dengan metode UV test.

Hasil: Rerata kadar SGOT pada kelompok A $99,06 \pm 8,1$ U/l, kelompok B $108,46 \pm 12,41$ U/l, kelompok C $109,23 \pm 7,95$ U/l, kelompok D $102,36 \pm 7,46$ U/l, dan kelompok E $112,53 \pm 16,31$ U/l. Rerata kadar SGPT kelompok A $56,5 \pm 4,18$ U/l, kelompok B $59,87 \pm 10,64$ U/l, kelompok C $64,1 \pm 4,76$ U/l, kelompok D $76,27 \pm 3,27$ U/l, dan rerata terendah pada kelompok E $54,13 \pm 9,95$ U/l. Uji *One Way ANOVA* kadar SGOT menunjukkan nilai $p > 0,05$, sedangkan SGPT menunjukkan nilai $p < 0,05$.

Kesimpulan: Pemberian ekstrak etanol akar purwoceng (*Pimpinella pruatjan* Molk.) secara akut tidak dapat mempengaruhi kadar SGOT, tetapi dapat mempengaruhi kadar SGPT pada tikus putih (*Rattus norvegicus*) jantan.

Kata kunci: purwoceng, uji toksisitas akut, SGOT, SGPT

THE EFFECT OF ACUTE ADMINISTRATION OF PURWOCENG ROOTS ETHANOL EXTRACT (*Pimpinella pruatjan* Molk.) TO SGOT AND SGPT LEVEL IN MALE ALBINO RAT (*Rattus norvegicus*)

Acute Toxicity Test

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ABSTRACT

Background: Purwoceng is herbal medicine that has been used traditionally as an aphrodisiac. Purwoceng contains lipophilic substances that potentially toxic to the hepatocytes, resulting to increased level of SGOT and SGPT.

Objective: The aim of the study was to analyze the effect of acute administration purwoceng roots ethanol extract to SGOT and SGPT levels in male albino rats.

Methods: Method of this study was an experimental study using post test only with control group design. Fifteen male albino rats were divided randomly into five groups. Group A as a control group received aquadest, group B, C, D, and E were given single dose of purwoceng roots ethanol extract of 5 mg/kgBW, 50 mg/kgBW, 300 mg/kgBW, and 2000 mg/kgBW respectively. After 24 hours of extract administration, rats' blood were obtained from orbital sinus. SGOT and SGPT levels were analyzed using UV test method.

Results: Mean of the SGOT level in Group A was $99,06 \pm 8,1$ U/l, group B was $108,46 \pm 12,41$ U/l, group C was $109,23 \pm 7,95$ U/l, group D was $102,36 \pm 7,46$ U/l, and the highest was group E $112,53 \pm 16,31$ U/l. Mean of SGPT level in group A was $56,5 \pm 4,18$ U/l, group B was $59,87 \pm 10,64$ U/l, group C was $64,1 \pm 4,76$ U/l, group D was $76,27 \pm 3,27$ U/l, and the lowest mean of SGPT level was group E ($54,13 \pm 9,95$). One Way ANOVA test of SGOT level showed the value of $p > 0,05$, meanwhile SGPT level showed $p < 0,05$.

Conclusions: Acute administration of Purwoceng (*Pimpinella pruatjan* Molk.) roots ethanol extract cannot increase the level of SGOT, meanwhile can increase level of SGPT in male albino rats (*Rattus norvegicus*).

Keywords: Purwoceng, acute toxicity test, SGOT, SGPT