

## ABSTRAK

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PENGARUH KADAR ENZIM TRANSAMINASE PADA TIKUS PUTIH JANTAN GALUR WISTAR (*Rattus norvegicus*) YANG DIINDUKSI PARASETAMOL

xvii + 66 Halaman + 4 Tabel + 17 Lampiran

Parasetamol merupakan senyawa analgesik-antipiretik yang termasuk dalam kategori obat antiinflamasi nonsteroid. Konsumsi parasetamol dalam dosis tinggi berpotensi memicu toksisitas hepatoseluler yang dapat diidentifikasi melalui elevasi aktivitas enzim transferase serum, meliputi SGOT dan SGPT. Studi ini dilakukan untuk mengevaluasi pengaruh parasetamol terhadap profil enzim transferase (SGOT dan SGPT) menggunakan model hewan coba tikus Wistar jantan (*Rattus norvegicus*). Metode penelitian menggunakan pendekatan eksperimental dengan rancangan kelompok kontrol acak pascates (*randomized post-test control group design*). Subjek penelitian dibagi ke dalam dua kelompok: kelompok kontrol negatif tanpa intervensi parasetamol dan kelompok uji yang menerima parasetamol dengan dosis 108 mg/200 gram bobot badan. Evaluasi biokimia dilakukan melalui analisis sampel serum untuk menentukan aktivitas enzim AST dan ALT menggunakan teknik spektrofotometri. Data hasil penelitian memperlihatkan bahwa aktivitas enzim AST pada kelompok perlakuan tidak menunjukkan perbedaan statistik yang bermakna terhadap kelompok kontrol (nilai  $p = 0,120$ ), walaupun ditemukan kenaikan rerata mencapai 134,16 U/L. Sebaliknya, aktivitas enzim ALT memperlihatkan perbedaan yang signifikan secara statistik antara kedua kelompok (nilai  $p = 0,011$ ). Temuan ini mengindikasikan bahwa pemberian parasetamol pada dosis 108 mg/200 gram bobot badan mampu menginduksi kerusakan fungsi hepatosit.

**Kata kunci:** parasetamol, enzim transaminase, hepatotoksitas, tikus putih jantan Galur Wistar (*Rattus norvegicus*)

## **ABSTRACT**

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*THE EFFECT OF TRANSAMINASE ENZYME LEVELS IN MALE WISTAR RATS (Rattus novergicus) INDUCED BY PARACETAMOL*

*xvii + 66 Pages + 4 Tables + 17 Appendies*

*Paracetamol is an analgesic-antipyretic compound that belongs to the category of nonsteroidal anti-inflammatory drugs. High doses of paracetamol can potentially trigger hepatocellular toxicity, which can be identified through elevated serum transferase enzyme activity, including SGOT and SGPT. This study was conducted to evaluate the effect of paracetamol on transferase enzyme profiles (SGOT and SGPT) using male Wistar rats (Rattus norvegicus) as test animals. The research method used an experimental approach with a randomized post-test control group design. The research subjects were divided into two groups: a negative control group without paracetamol intervention and a test group that received paracetamol at a dose of 108 mg/200 grams of body weight. Biochemical evaluation was performed through serum sample analysis to determine AST and ALT enzyme activity using spectrophotometry. The research data showed that AST enzyme activity in the treatment group did not show a statistically significant difference from the control group ( $p$ -value = 0.120), although an average increase of 134.16 U/L was found. In contrast, ALT enzyme activity showed a statistically significant difference between the two groups ( $p$ -value = 0.011). These findings indicate that administration of paracetamol at a dose of 108 mg/200 grams of body weight can induce hepatocyte dysfunction.*

**Keywords:** *paracetamol, transaminase enzymes, hepatotoxicity, Male white Wistar rats (Rattus novergicus).*