

ABSTRACT

The aims of study research were to prove the hepatoprotective effect of *Tithonia diversifolia* (Hemsley) A. Gray leaves infusion to decrease activity of SGPT and SGOT in rats induced with carbon tetrachloride.

The research is purely experimental research with randomized complete direct sampling design. A total of 30 male Sprague Dawley rats were devided randomly into 6 grups in the same amount. Group I (hepatotoxin controlled-group) was given carbon tetrachloride dose 2 mL/BW, then after 24 hours, their blood is drawed. Group II (negative controlled-group) was given olive oil 2 mL/kgBW, after 24 hours, their blood is drawed. Group III (infusion controlled-group) are given infusion of *Tithonia diversifolia* (Hemsley) A. Gray leaves at high dose 3 g/kgBW, then after 6 hours, their blood is drawed. Group IV, V, and VI (treatment group) were given infusion *Tithonia diversifolia* (Hemsley) A. Gray leaves at seri dose that have been decide 0,75, 1,5, 3 g/kgBW, then after 6 hours, carbon tetrachloride is administered intraperitoneally. At the 24th hour after administration of carbon tetrachloride, blood samples from all groups are took through the orbital sinus for measuring the SGPT and SGOT activities. The data is analyzed by Saphiro-Wilk, one way ANOVA, then Post-Hoc.

The result of this study shown, that the infuse of *Tithonia diversifolia* (Hemsley) A. Gray leaves, has hepatoprotective effect by decreasing the activity of SGPT and SGOT in rats induced with carbon tetrachloride. The dose of *Tithonia diversifolia* (Hemsley) A. Gray leaves infusion was 1,5 g/kgBW.

Keywords : hepatoprotective, *Tithonia diversifolia* (Hemsley) A. Gray leaves infuse, SGPT and SGOT, carbon tetrachloride

ABSTRAK

Penelitian ini bertujuan untuk membuktikan efek hepatoprotektif pemberian infusa daun *Tithonia diversifolia* (Hemsley) A. Gray terhadap penurunan aktivitas SGPT dan SGOT.

Penelitian ini termasuk penelitian eksperimental murni dengan rancangan acak lengkap pola searah. Hewan uji yang digunakan yaitu 30 ekor tikus dibagi secara acak dalam 6 kelompok sama banyak. Kelompok I (kontrol hepatotoksin) diberi CCl₄ dosis 2 mL/kgBB, diambil darahnya pada jam ke-24. Kelompok II (kontrol negatif) diberi *olive oil* dosis 2 mL/kgBB, diambil darahnya pada jam ke-24. Kelompok III (kontrol sediaan infusa) diberi dosis tertinggi infusa yaitu 3 g/kgBB, diambil darahnya pada jam ke-6. Kelompok IV, V, dan VI (kelompok perlakuan) diberi infusa dengan dosis 0,75, 1,5, 3 g/kgBB, setelah 6 jam, dilakukan pemberian CCl₄ 2 mL/kgBB secara *intraperitoneal*. Pengambilan darah dilakukan pada jam ke-24 setelah pemberian CCl₄, semua kelompok diambil darahnya dari *sinus orbitalis* mata untuk diukur aktivitas SGPT dan SGOT. Data aktivitas SGPT dan SGOT dianalisis menggunakan *Sapiro-Wilk*, lalu *One Way ANOVA* dengan taraf kepercayaan 95%, dan dilanjutkan menggunakan Post-Hoc.

Hasil penelitian menunjukkan, infusa daun *Tithonia diversifolia* (Hemsley) A. Gray memberikan efek hepatoprotektor dengan menurunkan aktivitas SGPT dan SGOT pada tikus terinduksi karbon tetraklorida. Dosis pemberian infusa daun *Tithonia diversifolia* (Hemsley) A. Gray adalah 1,5 g/kgBB.

Kata kunci : Hepatoprotektif, infusa daun *Tithonia diversifolia* (Hemsley) A. Gray, SGPT dan SGOT, karbon tetraklorida