

INTISARI

Telah dilakukan penelitian tentang efek hepatoprotektif air perasan daging buah makuto dewo (*Phaleria macrocarpa* (Scheff.) Boerl.) pada mencit jantan yang terinduksi oleh CCl_4 . Penelitian ini bertujuan untuk memperoleh informasi kebenaran dan besarnya kisaran dosis efektif hepatoprotektif air perasan daging buah makuto dewo akibat perlakuan hepatotoksin CCl_4 .

Penelitian ini merupakan penelitian eksperimental murni yang dikerjakan mengikuti rancangan acak lengkap pola searah. Sejumlah 35 ekor mencit jantan dibagi menjadi 7 kelompok sama banyak. Kelompok I (kontrol positif) diberi larutan CCl_4 dosis 3,92 ml/kgBB dalam parafin 10% per oral. Kelompok II (kontrol negatif) diberi aquadest 25 g/kgBB. Kelompok III diberi air perasan daging buah makuto dewo (per oral) peringkat dosis tertinggi 53,5 g/kgBB sekali sehari selama 6 hari. Kelompok IV-VII merupakan kelompok perlakuan, berturut-turut diberi air perasan daging buah makuto dewo dosis 0,72; 3,03; 12,74; 53,5 g/kgBB per oral sebanyak 1 kali selama 6 hari. Kemudian pada hari ke 7 diberi CCl_4 dosis 3,92 ml/kgBB (per oral). Selanjutnya kelompok I-VII diambil darahnya pada rentang waktu 48 jam di bagian sinus orbitalis mata untuk ditetapkan aktivitas GPT serum dengan metode kinetik GPT-ALAT. Mencit dikorbankan dan diambil hatinya untuk dibuat preparat histopatologi, kemudian diberi skoring menurut derajat kerusakannya, lalu dianalisis dengan uji statistik non parametrik Kruskal Wallis dan Mann Whitney. Data GPT-serum dan data berat hati relatif mencit diolah berdasarkan uji statistik analisis varian satu jalan dilanjutkan dengan uji LSD dengan taraf kepercayaan 95%. Selanjutnya dihitung efektif dosis tengah (ED_{50})nya dengan analisis probit. Data berat badan mencit pada tiap-tiap kelompok selama perlakuan dianalisis berdasarkan analisis *splitplot*.

Hasil penelitian menunjukkan bahwa air perasan daging buah makuto dewo dengan dosis 0,72; 3,03; 12,74; 53,5 g/kgBB yang diberikan secara oral mampu menurunkan aktivitas GPT serum berturut-turut sebesar 29,16%; 71,10%; 82,82%; dan 91,56% terhadap kontrol positif. Penurunan tersebut secara statistik bermakna ($p < 0,05$). Sedangkan hasil analisis skoring menunjukkan kelompok IV dan V secara histopatologi tidak berbeda bermakna ($p > 0,05$) dan kelompok VI dan VII berbeda bermakna ($p < 0,05$) terhadap kontrol positif. Hasil analisis berat badan mencit dan berat hati relatif mencit tidak menunjukkan perbedaan yang bermakna ($p > 0,05$). Nilai ED_{50} hepatoprotektif air perasan daging buah makuto dewo adalah 1625,5 mg/kgBB.

ABSTRACT

An experimental study on the hepatoprotective effect of squeezed juice of makuto dewo (*Phaleria macrocarpa* (Scheff.) Boerl.) fruit flesh has been conducted on male mice induced by CCl_4 . This experiment is intended to obtain factual information and the estimated quantity of hepatoprotective effective dose of the squeezed juice of makuto dewo fruit flesh as a result of CCl_4 hepatotoxine treatment.

A pure experimental study was done following the direct sampling design and was analyzed by one-way variant. Thirty five male mice were divided into seven groups with the same number. The first group (positive control group) was given CCl_4 solution with the doses of 3,92 ml/kgBW in 10% parafine orally. The second group (negative control group) was given 25 g/kgBW aquadest. The third group was given squeezed juice of makuto dewo fruit flesh (orally) with the highest rank doses of 53,5g/kg BW once a day for 6 days. The fourth to seventh groups were treatment groups, which were given the squeezed juice of makuto dewo fruit flesh with the doses of 0,72; 3,03; 12,74; 53,5 g/kgBW respectively orally once for 6 days. Then, on the seventh days, they were given CCl_4 with the doses of 3,92 ml/kg BW (orally). After wards, the first to seventh group's blood was sampled at the eyes sinus orbitalis to determine the activity level of their SGPT level by a kinetic method of GPT-ALAT. The mice were sacrificed and their livers were taken to be made histological blood smear, then they were scored based on they stage of hepatic destruction, and were analyzed using Kruskal Wallis and MannWhitney non-parametric statistical test. SGPT activity data and the relative liver weight data of mice were evaluated based on the statistical test of one-way variant analyzed and LSD test at 95% significant level. Later, the median effective doses (ED_{50}) were calculated by probit analysis. The body weight data of the mice in each groups during the treatment were analyzed based on the analysis split plot.

The result of study showed that the squeezed juice of makuto dewo fruit flesh with the doses of respectively 0,72; 3,03; 12,74; 53,5 g/kg BW which were given orally could decrease the GTP activity level to respectively 29,16%; 71,10%; 82,82%; and 91,56% towards the positive control group. The decline was statistically significant ($p > 0,05$). Whereas, scoring analysis demonstrated the histologic appearance (photomicrograph) that there was unsignificantly difference ($p > 0,05$) between the fourth and fifth groups. There was a significantly difference ($p > 0,05$) between the sixth and the seventh group toward the positive control group. The body weight and the relative liver weight of the mice showed an unsignificantly difference. The hepatoprotective median effect doses (ED_{50}) of squeezed of makuto dewo fruit flesh is 1625,5 mg/kg BW.