INTISARI

Telah dilakukan penelitian tentang efek hepatoprotektif jus buah apel hijau (*Pyrus malus* L.) pada mencit jantan terinduksi parasetamol dengan tujuan memperoleh bukti ilmiah efek hepatoprotektif jus buah apel hijau (*Pyrus malus* L.) dan besarnya dosis efektif hepatoprotektifnya.

Penelitian ini adalah eksperimental murni yang dikerjakan mengikuti rancangan acak lengkap pola searah. Tiga puluh lima ekor mencit jantan dibagi secara acak dalam 7 kelompok dengan jumlah yang sama. Kelompok I diberi CMC 1% 0,33 g/kgBB. Kelompok II diberi jus buah apel hijau 25,0 g/kgBB. Kelompok III diberi suspensi parasetamol 0,250 g/kgBB. Kelompok IV-VII berturut-turut diberi jus buah apel hijau dosis 0,39 g/kgBB; 1,56 g/kgBB; 6,25 g/kgBB; 25,0 g/kgBB secara oral sekali sehari selama 6 hari berturut-turut. Hari ke-7 diberi suspensi parasetamol 0,250 g/kgBB. Dua puluh empat jam kemudian, mencit diambil darahnya melalui sinus orbitalis mata untuk ditetapkan aktivitas GPT-serum. Kemudian, mencit dikorbankan dan hatinya diambil untuk pembuatan preparat histologi, kemudian diberi skor menurut derajat kerusakannya. Data aktivitas GPT-serum dan skoring histopatologi dianalisis dengan Levene Test dan uji Kolmogorov-Smirnov, kemudian dilanjutkan dengan uji Kruskal-Wallis dan Mann-Whitney dengan taraf kepercayaan 95%. Dosis efektif tengah (ED_{50}) dihitung dengan analsis probit.

Hasil penelitian menunjukkan bahwa jus buah apel hijau dosis 0,39 g/kgBB; 1,56 g/kgBB; 6,25 g/kgBB; dan 25,0 g/kgBB mampu memberikan efek hepatoprotektif berturut-turut sebesar 38,0%; 54,99%; 68,76%; dan 83,31%. Analisis skoring histopatologi menunjukkan bahwa kelompok IV, V, VI, dan VII mempunyai kondisi hati yang lebih baik dibanding kontrol positif yang tercermin dari persen angka proteksi berturut-turut sebesar 16,67%; 36,67%; 50,0%; dan 63,33%. Kesimpulan, jus buah apel hijau mempunyai efek hepatoprotektif pada mencit jantan terinduksi parasetamol. Nilai ED_{50} hepatoprotektifnya adalah 1,104 g/kgBB.

ABSTRACT

An experimental research on the hepatoprotective effect of green apple (*Pyrus malus* L.) juice has been conducted on male mice induced by acetaminophen that is aimed to get scientific evidence and estimated quantity of hepatoprotective effect of green apple juice.

A pure experimental research was done following the direct sampling design. Thirty five male mice were divided into 7 groups at the same number. First group was given CMC 1% 0.33 g/kgBB. Second group was given green apple juice dose 25.00 g/kgBB. Third group was given suspention of acetaminophen dose 0.250 g/kgBB. The fourth to seventh groups were given green apple juice doses of 0.39 g/kgBB; 1.56 g/kgBB; 6.25 g/kgBB; dan 25.00 g/kgBB respectively orally once for 6 days. On the seventh day, they were given suspention of acetaminophen dose 0.250 g/kgBB. After 24 hours, blood of mices on all groups was sampled at the sinus orbitalis of eyes to measure the activity GPT-serum level. The mice were sacrified and their liver were taken for histopathology observation, then scored based on the stage of hepatic destruction. GPT-serum activity and histopathology scoring data was analyzed by Levene test and Kolmogorov-Smirnov test, then continued by Kruskal-Wallis and Mann-Whitney test at 95% confidence level. The median effective dose (ED_{50}) were calculated by using probit analysis.

The result of this study showed that green apple juice doses of 0.39 g/kgBB; 1.56 g/kgBB; 6.25 g/kgBB; and 25.00 g/kgBB had the hepatoprotective effect of 38,0%; 54,99%; 68,76%; and 83,31% respectively. The analysis of scoring histopathology showed that the liver condition of the fourth to seventh groups were better than positif control with protection values in precentage 16,67%; 36,67%; 50,0%; and 63,33% respectively. Conclussion, green apple juice has the hepatoprotective effect on male mice induced by acetaminophen. Its hepatoprotective median effective dose (ED_{50}) was 1.104 g/kgBB.