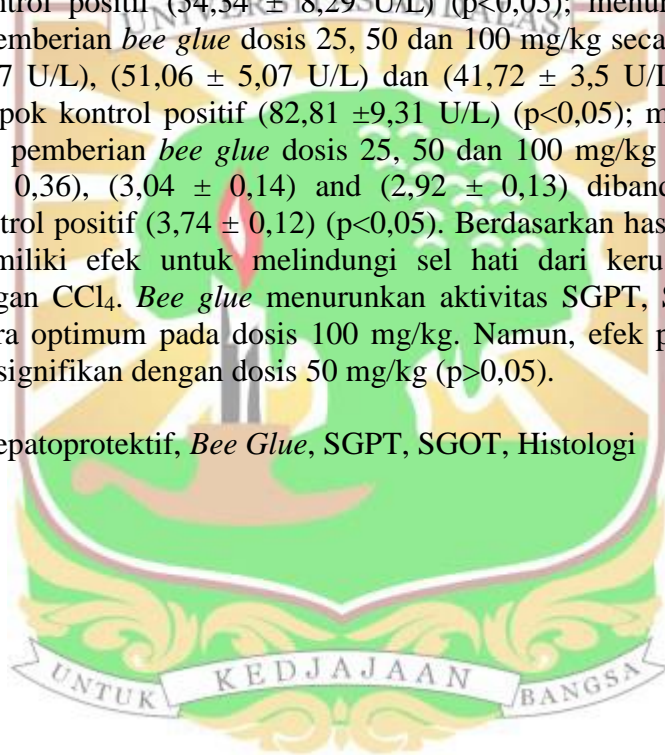


ABSTRAK

Bee glue dilaporkan memiliki aktivitas biologi yang luas. Tujuan penelitian ini adalah untuk mengetahui efek hepatoprotektif *bee glue* terhadap aktivitas *Serum Glutamic Pyruvic Transaminase* (SGPT), *Serum Glutamic Oxaloacetic Transaminase* (SGOT) serta gambaran histologi hati mencit yang diinduksi CCl₄. Mencit sebanyak 25 ekor dibagi ke dalam 5 kelompok secara acak; kelompok kontrol negatif yang diberi aquadest, kelompok kontrol positif diberi CCl₄ (2,8 mL/kg, p.o.) yang dilarutkan dalam *oleum sesami*, dan kelompok perlakuan yang diberi *bee glue* pada dosis 25, 50 dan 100 mg/kg selama 14 hari. Efek Hepatoprotektif *bee glue* ditunjukkan dengan penurunan aktivitas SGPT pada pemberian *bee glue* dosis 25, 50 dan 100 mg/kg secara berturut-turut ($46,90 \pm 4,71$ U/L), ($39,14 \pm 4,63$ U/L), dan ($32,34 \pm 3,61$ U/L) dibandingkan dengan kelompok kontrol positif ($54,34 \pm 8,29$ U/L) ($p < 0,05$); menurunkan aktivitas SGOT pada pemberian *bee glue* dosis 25, 50 dan 100 mg/kg secara berturut-turut ($65,99 \pm 11,17$ U/L), ($51,06 \pm 5,07$ U/L) dan ($41,72 \pm 3,5$ U/L) dibandingkan dengan kelompok kontrol positif ($82,81 \pm 9,31$ U/L) ($p < 0,05$); menurunkan skor histologi pada pemberian *bee glue* dosis 25, 50 dan 100 mg/kg secara berturut-turut ($3,40 \pm 0,36$), ($3,04 \pm 0,14$) and ($2,92 \pm 0,13$) dibandingkan dengan kelompok kontrol positif ($3,74 \pm 0,12$) ($p < 0,05$). Berdasarkan hasil penelitian ini, *bee glue* memiliki efek untuk melindungi sel hati dari kerusakan sel yang diinduksi dengan CCl₄. *Bee glue* menurunkan aktivitas SGPT, SGOT dan skor histologi secara optimum pada dosis 100 mg/kg. Namun, efek proteksi tersebut tidak berbeda signifikan dengan dosis 50 mg/kg ($p > 0,05$).

Kata kunci: Hepatoprotektif, *Bee Glue*, SGPT, SGOT, Histologi



ABSTRACT

Bee glue is reported to have the broad spectrum of biological activities. The aim of this study was to investigate the hepatoprotective effect of bee glue on the activity of Glutamic Pyruvic Transaminase Serum (SGPT), Glutamic Oxaloacetic Transaminase Serum (SGOT) and liver histologic profile of mice induced by CCl₄. There were 25 mice which randomly divided into five groups: negative control group received aquadest, positive control group administered CCl₄ (2,8 mL/kg, p.o.) dissolved in *oleum sesami*, and treatment group received bee glue at dose 25, 50 and 100 mg/kg for 14 days. Hepatoprotective activity was shown by the decreased activity of SGPT in bee glue administration at dose 25, 50 and 100 mg/kg in respectively (46.90 ± 4.71 U/L), (39.14 ± 4.63 U/L), and (32.34 ± 3.61 U/L) compared with the activity of positive control group (54.34 ± 8.29 U/L) ($p < 0.05$); reduce the activity of SGOT in bee glue administration at dose 25 mg/kg, 50 mg/kg and 100 mg/kg in respectively (65.99 ± 11.17 U/L), (51.06 ± 5.07 U/L) and (41.72 ± 3.5 U/L) compared with the activity of positive control group (82.81 ± 9.31 U/L) ($p < 0.05$); decreased the score of histologic in bee glue giving a dose 25, 50 and 100 mg/kg in respectively (3.40 ± 0.36), (3.04 ± 0.14) and (2.92 ± 0.13) compared with the activity of positive control group (3.74 ± 0.12) ($p < 0.05$). Based on these result, bee glue possessed a liver cell protection the activity against cell damage induced by CCl₄. Bee glue decreased the activity of SGPT, SGOT, and score of histologic of mice which were optimum at dose 100 mg/kg. Despite their effectiveness, the dose 100 mg/kg was not significantly different decreasing activity of SGPT, SGOT, and score of histologic compared with the dose 50 mg/kg ($p > 0.05$).

Key words: Hepatoprotective, Bee Glue, SGPT, SGOT, Histology

