

THE EFFECT OF ONION (*Allium cepa* L.) EXTRACT ON LIVER HISTOPATHOLOGY OF WHITE RATS (*Rattus norvegicus*) WITH DIABETES MELLITUS

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ABSTRACT

This research aimed to know the effect of onion (*Allium cepa* L.) extract on liver histopathology of white rats (*Rattus norvegicus*) with diabetes mellitus. Onion (*Allium cepa* L.) contains *allyl propyl disulphide* (APDS) that can increase insulin product as hypoglycemic agent. This study is using 20 of three months old white rats as experimental animals. Rats were randomly divided into 5 groups based on treatment. Rats in negative control group were not induced by alloxan while the others were induced with 120 mg/kg bw of alloxan. Each group received different treatment with oral administration for 14 days. K- treated by CMC Na 0.5%, P0 induced by alloxan and treated by CMC Na 0.5%, P1 (200 mg/kg bw of onion extract), P2 (400 mg/kg bw of onion extract) and P3 (800 mg/kg bw of onion extract). Liver histopathology were examined under light microscope in 400 times magnification. Scoring method were using Arsad Scoring Method to examined the presence of necrosis and congestion. Then, the data of this study were analyze by Kruskal-Wallis test and followed by Mann-Whitney test of statistical analylis. The result of this study showed that onion (*Allium cepa* L.) extract can improve liver histopathology of of white rats (*Rattus norvegicus*) with diabetes mellitus.

Keyword : *Allium cepa* L, Diabetes mellitus, liver, rats.