

ABSTRACT

THE EFFECT OF MAHOGANY SEED ETHANOL EXTRACT (*Swietenia mahagoni* Jacq.) TO REDUCE BLOOD GLUCOSE LEVEL ON ALLOXAN INDUCED MICE

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Diabetes mellitus (DM) is a progressive chronic degenerative disease with glucose metabolic dysfunction. Hyperglycemia causes oxidative stress which needs additional exogenous antioxidant. Mahogany seed which contains antioxidant is used empirically as an herbal therapy for DM). The aim of this research is to assess the effect of Mahogany seed ethanol extract to reduced blood glucose level on Alloxan induced mice. This is a real experimental research with longitudinal prospective characterized and used Complete Random Design method. This research used 25 male Swiss Webster mice that induced with Alloxan for 14 days and were grouped into 5 groups, each group were treated for 7 days. Blood glucose level of the mice measured after treated. The research results was analyzed by ANOVA method continued with Tukey HSD test. The result after treated with 1 DM, 2 DM, 4 DM doses of mahogany seed ethanol extract, glibenclamide (comparison), aquadest (control) were 54.9 %, 41.83 %, 71.3 %, 52 %, and 6.54 %. In the research, 1 DM, 2 DM, and 4 DM doses of mahogany seed ethanol extract are proved with statistical and show a significant effect if compared with control ($p < 0.05$), but aren't are proved with statistical and show a significant effect if compared with the comparison ($p > 0.05$). The conclusion of this study is mahogany seed ethanol extract 1 DM, 2 DM and 4 DM doses is effective to reduced blood glucose levels.

Key words: mahogany seed ethanol extract, blood glucose level

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