

ABSTRACT

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**THE EFFECT OF COMBINATION OF CINNAMON EXTRACT
(*Cinnamomun burmannii*) AND MENIRAN LEAVES
(*Phyllanthus niruri* L.) IN REDUCING BLOOD GLUCOSE
LEVELS IN MICE (*Mus musculus*) INDUCED BY ALCOXAN**

ABSTRACT

Diabetes Mellitus (DM) or sugar disease is a metabolic disease that occurs due to abnormalities in insulin secretion, insulin action or both which are currently experienced by many Indonesians. Traditional medicine is an alternative treatment in lowering blood sugar levels. Some plants used in antidiabetic treatment are meniran leaves and cinnamon. The purpose of this study is to determine the effect of a combination of cinnamon extract and meniran leaves in reducing blood glucose levels in alloxan-induced male white mice.

This research method used true experimental with pretest-posttest control group design using 25 male mice divided into 5 groups. Negative control group, positive control, meniran leaves extract group 200mg/kgBB, cinnamon extract group 200mg/kgBB, and a combination group of meniran leaves extract 200mg/kgBB and cinnamon extract 200mg/kgB. Induction of alloxan dose 125mg/kgBB, checking was done on day 3 and giving test preparations in all groups, and checking blood glucose levels at hours 2, 4, 6 and 24.

The results of this study showed all test groups of meniran leaves extract with a sig value of 0.786, cinnamon extract with a sig value of 0.098 and a combination extract sig value of 0.233, there was no difference in reducing blood glucose levels. The combination extract group has the best antihyperglycemic effectiveness compared to the single extract group of meniran leaves and cinnamon.

Further research needs to be done regarding the dose of the combination of meniran leaves extract and cinnamon in each group.

Keywords : Diabetes Mellitus, Glibenclamide, Meniran Leaves, Cinnamon