

ABSTRACT

EXTRACT OF MAHKOTA DEWA (*Phaleria macrocarpa*) AS
A BLOOD GLUCOSE LOWERING AGENT ON
STREPTOZOTOCIN (STZ) INDUCED MUS MUSCULUS

Background : Mahkota dewa (*Phaleria macrocarpa*) is one of Indonesian traditional medicine that contains alkaloids, flavonoids, resins, tannins and predicted to has a lowering effect on blood-glucose. Diabetes mellitus (DM) is a disease caused by insufficient insulin secretory by the pancreas or ineffective usage of insulin that produced by the body thus cause a hyperglycemia condition.

Method : This was an experiment with *posttest control group design*. Samples were 30 mice, divided into three different groups (K, P1, and P2). Each groups were induced by multiple low-dose STZ. P1 treated with the extract of *Phaleria macrocarpa* , and P2 treated with metformin.

Result : There was a reducing result of pretest posttest blood-glucose on P1 with the value of 176,143, while the value on P2 was 94,5. The independent-t test for the decrement on P1 and P2 were compared with independent-t test and has the pvalue of 0,277 ($p>0,05$) by means that there was no significant difference between the result of P1 and P2.

Conclusion : The extract of mahkota dewa (*Phaleria macrocarpa*) has slightly more lowering effect towards the blood-glucose compared to metformin.

Keywords : Diabetes mellitus, hyperglycemia, mahkota dewa, *Phaleria macrocarpa*, streptozotocin induced, mice, metformin.