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 p-value 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.