

# ANTI-HYPERGLYCAEMIC ACTIVITIES IN THE PROVISION OF SOLUDIA® PRODUCT TO MALE WISTAR RATS INDUCED WITH STREPTOZOTOCIN

Sely Wafiroh  
Prodi Farmasi

## ABSTRACT

Diabetes mellitus is a chronic disease in which the blood glucose increases caused by the heredity factor, the declined insulin production, or worst insulin production by pancreas. Diabetes mellitus requires a long-term management; therefore, it needs an alternative medication such as in the form of herbal medicines like Yaçon leaves (*Smallanthus sonchifolius*), Sambiloto leaves (*Andrographis paniculata* (Burm.f.) Ness.) and Meniran leaves (*Phyllanthus niruri* L.) combined to be a product in the form of herbal medicine of Soludia®. This research aimed to observe how the anti-hyperglycaemia activities in the provision of Soludia® product to the male Wistar rats induced with single dose of streptozotocin. It started by dividing 36 male Wistar rats that had the weight of 150-200 grams into six groups. The induction of streptozotocin at dose of 13mg/200gBB to rats to all groups except normal control. After five days, the measurement of the level of fasting blood glucose was performed as the requirement to continue to the treatment phase. In the normal control, no treatment was given and in the negative control, it was only given Aquades and in the positive control, it was given with metformin at the dose of 9mg/200gBB rats and 3 groups of treatment with different dosages those are 18mg/200g, 36mg/200g, and 54mg/200g with the total treatment for 22 days. The measurement of fasting blood glucose levels was carried out on day 0 before induction, day 5 after induction and day 22 after treatment using the GOD-PAP method. The results of the study were based on the percentage of capacity of fasting blood glucose levels in the positive control group, treatment 1, treatment 2 and treatment 3 with a percentage of 27.53%, 33.81% and 25.94%, respectively. Based on the data obtained from fasting blood glucose levels, 18mg/200gr rats, 36mg/200gr rats and 54mg/200gr rats given Soludia® had the equal anti-hyperglycaemia activities.

Keywords: Soludia®, diabetes mellitus, anti-hyperglycaemia activities, streptozotocin

