ABSTRACT

Background : Diabetes mellitus prevalence is ever increasing year to year, that an effective and efficient drug is needed to overcome this metabolic syndrome. This research uses *Parkia Speciosa hassk* be an effective and economic traditional alternative as it contains flavonoid, terpenoid, tannin,and phenolic that are capable of lowering glucose level.

Purpose : To analyze the effects of *Parkia Speciosa hassk* extract administration on the glucose level reduction in streptozotocin – induced male wistar rat.

Method : It is an experimental research using the pre and post test randomized controlled group design. Experimental animals are 30 male wistar rat divided into 5 treatment groups; pure water (negative control), metformin dose of 18 mg/200g of bodyweight (positive control), and three groups given 125, 250, 500 mg/kg of bodyweight *Parkia Speciosa hassk* extract respectively. Each group has been induced with streptozotocin to a glucose level of approximately 126 mg/dL, and then their post streptozotocin fasting glucose level is measured as pre test data. Treatments are administered for 7 days, and during 7 their fasting glucose levels are measured as post test data.

Results : In the treatment group a dose of 125 mg / kg bodyweight,The remaining number of samples is too small until the end of the research, So that results can not be determined. But,treatment groups with dose 250 and 500 mg/kg of bodyweight indicate significant values at pre test and post test, with $p < 0.05$. Dose 250 and 500 mg/kg of bodyweight show better reduction compared to using pure water and shows equivalent reduction to using metformin generally in 7 days.

Conclusion : *Parkia Speciosa hassk* extract with dose 125 mg/kg bodyweight that results can not be determined. But, *Parkia Speciosa hassk* extract with dose 250 and 500 mg/kg of bodyweight has the ability to lower glucose level better than pure water and effective as metformin if admistered for 7 days.

Keywords : **Extract, *Parkia Speciosa hassk*, glucose level, streptozotocin.**