

Antidiabetic Evaluation of Pig (*Sus scrofa*) Bile on Alloxan-Induced BALB/c Mice

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Abstract : This study discerns to evaluate the antidiabetic efficacy of pig bile on alloxan-induced BALB/c mice. The experimental animals were divided and selected using RCBD into 5 groups (n= 4): T1 (negative control), T2 (1ml/kg), T3 (2ml/kg), T4 (3ml/kg) and T5 (Glibenclamide). Hyperglycemia was induced by injecting 1% alloxan monohydrate intraperitoneally. A glucose tolerance test was performed using a 2g/kg glucose solution, and blood glucose levels were measured at different time intervals. 14 days of monitoring was also done to ensure effectivity and efficacy of the different treatments. Bodyweight was also determined. Results show that administration of treatments on test animals significantly reverted the blood glucose levels of mice in 60 minutes and 120 minutes using an oral glucose tolerance test. After 14 days of monitoring, normal blood glucose levels were seen significantly on T2 (1ml/kg), T3 (2ml/kg), T4 (3ml/kg), and T5 (Glibenclamide), which only suggests the efficacy of pig bile on lowering glucose levels on alloxan-induced diabetic mice. Bodyweight analysis shows no significant difference. Duncan's multiple range test (DMRT) shows comparable efficacy and effectivity between T4 (3ml/kg) and T5 (Glibenclamide) on lowering BGL at different day and time intervals.

Keywords : pig bile, BALB/c mice, blood glucose, Glibenclamide

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