THE EFFECT OF BITTER MELON (*Momordica charantia* Linn.)
EXTRACTS ON THE AMOUNT OF LEYDIG CELLS OF
HYPERGLYCEMIC WHITE RATS (*Rattus norvegicus*)

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ABSTRACT

The aim of this research was to find out the effect of bitter melon (*Momordica charantia* Linn.) extracts in the amount of Leydig cells hyperglycemic white rats (*Rattus norvegicus*). This research used 24 white rats are 2-3 months old which has 180-200 g of body weight. They were devided randomly into 6 groups. Alloxan induced pancreatic damage was performed in 5 groups with 150 mg/kg body weight intraperitoneally. After state hyperglycemic condition, 3 groups was treatment with a dose therapy of bitter mellon (*Momordica charantia* Linn.) extracts, (P1) 29mg/ml/day, (P2) 50 mg/ml/day, and (P3) 59 mg/ml/day, one group as a control negative was given CMC Na 0.5% 1ml/day, one group as a control positive was given Glibenclamide® 0.126 mg/ml/day. One group as a control normal was induced CMC Na 0.5% 1ml/day without alloxan 150 mg/kg body weight intraperitoneally. After 14 days treatment, 24 white rats were killed and harvest the testes to made a histopathology preparations using *Haematoxylin Eosin* (HE) staining. The data were analyzed by *Analysis of Variance* (ANOVA) method based on *Completely Randomized Design*, and further analyzed by Duncan’s multiple range. The treatment (P3) 59 mg/ml/day dose can increase the amount of the highest Leydig cells compared with P1 and P2 groups (29mg/ml/day and 50 mg/ml/day). The results from statistical analysis showed that treatment with bitter melon (*Momordica charantia* Linn.) extracts 50 mg/ml/day dose increased the amount of Leydig cells (42.80 ± 4.55) of hyperglycemic white rats (p < 0.05).

**Key words** : Hyperglycemic, alloxan, bitter melon extracts, Leydig cells