

THE ANTIDIABETIC EFFECT OF BITTER MELON FRUIT (*Momordica charantia*) EXTRACT IN REPAIRING COMPOSING CELL OF LANGERHANS ISLAND DAMAGE IN MALE RATS (*Rattus norvegicus*) INDUCED BY ALLOXAN

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ABSTRACT

Diabetes Mellitus is a metabolic disorder that is genetically and clinically heterogenous with manifestations including loss of carbohydrate tolerance. Bitter melon fruit (*Momordica charantia*) is known has some active substances such as flavonoids, polyphenols and saponins, which is potentially as antidiabetic. The aim of this study was to know the effect of giving bitter melon fruit (*Momordica charantia*) extract in repairing composing cell of Langerhans island damage in rats induced by alloxan. Giving ethanol extract bitter melon fruit (*Momordica charantia*) done for 21 days. Dosage of alloxan on each group of alloxan-induced is 150 mg/kg of body weight. (K-) group are negative control treatment which giving by CMC Na 0,5%, (K+) group are positive control treatment which giving by glibenclamid 0,126 mg/oral. (P0) group are positive control treatment without bitter melon fruit extract therapy. (P1) group were induced by extract ethanol bitter melon doses of 27 mg/kg of body weight. (P2) group were induced by extract ethanol bitter melon doses of 47 mg/kg of body weight. (P3) group were induced by extract ethanol bitter melon doses of 57 mg/kg of body weight. The results of the research showed that the ethanol extract of bitter melon fruit (*Momordica charantia*) has antidiabetic effect that can repair damaged composing cells of Langerhans island at a dose of 57 mg/kg of body weight with a mean number of composing cells of Langerhans $247,00 \pm 9,933$.

Key words : Bitter melon fruit (*Momordica charantia*), antidiabetic, pancreas, composing cells of Langerhans island