THE INFLUENCE OF MELATONIN TO PANCREAS LANGERHANS ISLET CELLS HISTOPATOLOGIC OF RAT (Rattus norvegicus) IN DIABETES MELLITUS TYPE I EXPERIMENTAL

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ABSTRACT

This research has been done to know the differences of quantity Langerhans islet cells by the influence of melatonin at diabetes mellitus type I experimental. 25 male rat ± 3 months of ages was divided into 5 treatment groups. The treatment P0 (positive control) was given physiological NaCl, P1 (negative control) was given alloxan as diabetes mellitus type I experimental at 150 mg/kg bw, P2 was given melatonin at 5 mg/kg bw, P3 at 10 mg/kg bw and P4 at 15 mg/kg bw were given for 7 days and the 8th day P2, P3 and P4 were given alloxan at 150 mg/kg bw. The rat were sacrificed for histological preparation. The result of this research used Anava, treatment showed the significantly difference on P0, P1, P2, P3 and P4 respectively with F count > F table (0.01) and followed with Duncan treatment showed the P0 was significantly difference with P1, P2, P3 and P4 respectively and between P2, P3 and P3 were not significantly difference but real difference with P1. It’s mean that melatonin didn’t gave influence to mantained quantity Langerhans islet cells at diabetes mellitus type I experimental, but can still reduced the cells damaged at diabetes mellitus type I experimental.

Key word : Melatonin, Alloxan, Langerhans cells, Diabetes Mellitus type I Experimental