PERUBAHAN MORFOLOGIK SEL β PANKREAS AKIBAT PEMBERIAN LEPTIN PADA TIKUS MODEL DIABETES MELITUS TIPE 2

SKRIPSI

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MORPHOLOGIC CHANGES OF PANCREATIC β CELL GIVING DUE LEPTIN IN RATS MODEL OF TYPE 2 DIABETES MELLITUS

ABSTRACT

Background. *Leptin is a hormone from fat cells whose concentration correlated positively with body fat mass. Ob-Rb leptin receptor not only as contained in the central nervous system but also in various peripheral cells such as T cells, vascular endothelial cells, muscle cells, and pancreatic β cells.* ***Purpose.*** *To determine morphological changes in pancreatic β cells from providing lepin in rats models of type 2 diabetes mellitus.* ***Method.*** *The fourteen rats models of type 2 diabetes mellitus were divided into two groups, they are a control group was induced saline and treatment group was induced by a intraperitoneal injection of leptin (100 ug/kg, i.p) for 7 days. On day 14, rats were anesthetized with ether. After anesthetized, performing surgery and the pancreas was collected immidiatelly. The tissue were immidiately washed with saline, then fixed with formalin 10%. Subsequently made histological preparations.* ***Result.*** *Found significant differences of pancreatic β cells that have piknosis and karioreksis between the control group with treatment group, this is indicated by p <0.05.* ***Conclusion.*** *A decline in the number of pancreatic β cell morphology changes due to administration of leptin in the rat model of type 2 diabetes mellitus.*

Key words: *type 2 diabetes mellitus, leptin, beta-cell pancreas*