

Effect of Bawang Dayak (*Eleutherine Palmifolia L Merr*) Bulb Ethanol Extract toward Pancreatic Histopatology and Interleukin-6 Expression in Rats Induced by Alloxan

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ABSTRACT

The aim of this study is to evaluate the histopatological of Langerhans pancreatic islets and IL-6 expression in pancreas due to oral administration treatment of the bawang dayakbulb ethanol extract (BDB-EE) in alloxan induced diabetic rats. Alloxan was administered intraperitoneally with single dose of 120 mg/kgBW. Twenty four male rats (*Rattus norvegicus*) with body weight 180 gram were used in this study. The rats were divided into six groups: K0 group was non diabetic control rats (without alloxan administration), K1 group was diabetic rats and treated by CMC Na 0,5%, K2 group was diabetic rats and treated by metformin as a standart drug 45mg/kgBW, P1 was diabetic rats and treated by BDB-EE 200 mg/kgBW, P2 was diabetic rats and treated by BDB-EE 400 mg/kgBW, and P3 was diabetic rats and treated by BDB-EE 800 mg/kgBW. The number of endocrine cells and the percentage of IL-6 expression were analyzed using ANOVA and significantly different when followed by Duncan test. The result of this study shows that the bawang dayakbulb ethanol extract has antidiabetic effect. Bawang dayakbulb ethanol extract increased number of endocrine cells and decreased IL-6 expression in Langerhans pancreatic islets.

Keyword: *Eleutherine Palmifolia (L) Merr*, Alloxan, Langerhans pancreatic cells, IL-6 expression