INFLUENCE OF ONION (Allium Cepa L.) ETHANOL EXTRACT ON WHITE RATS ISLET OF LANGERHANS (Rattus norvegicus) INDUCED WITH ALLOXAN

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ABSTRACT

The purpose of this research was to know the influence of onion (Allium cepa l.) ethanol extract on white rats islet of Langerhans (rattus norvegicus) with diabetes mellitus. This study was experimental study, using male rats with 150-200 gram weight induced hyperglicemic with alloxan 120 mg/kgBW (IP). Samples consist of twenty rats were divided into five groups, negative control group (K-) was not induced by alloxan, which treatment by giving CMC Na 0,5%, positive control group (K+) was induced by alloxan without onion ethanol extract, group 1 (P1) was induced by alloxan and gave onion ethanol extract 200 mg/kgBW, group 2 (P2) was induced by alloxan and gave onion ethanol extract 400 mg/kgBW, group 3 (P3) was induced by alloxan and gave onion ethanol extract 800 mg/kgBW daily for 14 days period. The tissue is stained with Hematoxylin-Eosin for morphological studies and analysis of the average islet of Langerhans. The data have been described in the table form, analyzed with One Way Anova for the normality of the data, furthermore analyzed with Duncan test. The results of this research showed that addingethanol extract of onion (Allium cepa L.) with the dose 400 mg/kgBW group 2 (P2) was significantly higher (p< 0,05) than the group 1 (P1) 200 mg/kgBW, group 3 (P3) 800 mg/kgBW, and positive control group K(+).

Keywords: Allium cepa L., alloxan, hyperglycemic, islet of Langerhans, rats.