

ABSTRACT

THE EFFECTIVENESS OF TURMERIC LEAVES EXTRACT ON BLOOD GLUCOSE AND SEROTONIN LEVELS IN PYRAMIDAL CELL HISTOLOGY DIABETES MELLITUS MUS MUSCULUS

Introduction. Diabetes mellitus is a public health problem with a high incidence rate and has a major impact on morbidity and mortality. In the condition of diabetes mellitus, it often causes various problems of oxidative stress due to serotonin levels decrease and inhibits the activity of the hypothalamic axis of the pituitary adrenal which results in the pyramidal cells damage. The purpose of this study is analyze the effectiveness of turmeric leaf extract on blood glucose levels and histology of diabetes mellitus Muscular Muscular Muscles. **Method.** The design and type of this study is experimental (true experiment design) laboratory using the post-test control group design approach. The population in this study design was male mice (Mus Musculus). The design of the study used 5 groups. The intervention group was given 3 types of doses, namely a low dose of 3 mg / 20g BW / day, a moderate dose of 6 mg / 20g BW / day and a high dose of 10 mg / 20g BW / day. The analysis used the Manova test with a significant value $\alpha = 0.05$. **Results & Analysis.** The results of the study using the Manova test indicated that there was a significant effect between the administration of turmeric leaf extract on reducing blood glucose levels and increasing pyramidal cells in the brain of diabetes mellitus model mice with $p .000$. In the further tests conducted to determine which turmeric leaf extract dosage had the most significant effect on the decrease in the number of glia cells, it was found that the group that had a significant effect was the high treatment group. The mean value of the increase is that 90.4% of pyramidal cells have a change from heavy damage to normal. **Discussion & Conclusion.** The studied substances were observed to proccess turmeric leaves extract effects on lowering blood glucose levels by increasing the number of pyramidal cells to normal in diabetes mellitus Mus Musculus.

Keywords: Diabetes mellitus, turmeric leaves, pyramidal cells