

ABSTRACT

EFFECT OF *SYZYGIUM CUMINI* L. SKEELS LEAF EXTRACT ON SERUM INSULIN LEVEL IN STREPTOZOTOCIN INDUCED MICE (*MUS MUSCULUS*)

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The objective of this study was to explore the effect of *syzygium cumini* L. Skeels leaf extract on serum insulin level in streptozotocin induced mice (*Mus musculus*). This study was a laboratory experimental study using randomized the posttest-only control group design and was carried out in experimental animal unit, Departement of Biochemistry, Airlangga University School of Medicine. A number of 30 mice were divided into three groups. Negative control group comprised normal mice, positive control group comprised DM mice due to STZ induced, and treatment group comprised STZ-induced DM mice receiving 500mg/kg BW of *syzygium cumini* L. Skeels leaf extract for 10 days. After treatment periode, the blood were collected intracardially. Serum insulin level were measured by Enzim link immunosorbent assay (ELISA). Statistical analysis using one way Anova.

It was found that serum insulin level were significantly higher ($p=0.0001$) in treatment group ($15.84\pm 1.64 \mu\text{U/ml}$) than positive control group ($7.01\pm 0.82 \mu\text{U/ml}$), while serum insulin level was significantly lower ($p=0.0001$) in positive control group ($7.01\pm 0.82 \mu\text{U/ml}$) than negative control group ($18.94\pm 2.15 \mu\text{U/ml}$). It indicated that *syzygium cumini* L. Skeels leaf extract increase serum insulin level in STZ-induced mice.

Keywords: *Syzygium cumini* L. Skeels, serum insulin level, DM.