

## ABSTRACT

There are many factors of diabetes mellitus. One of them is cigarette smoke. The goal of this research is to analyse the patter of blood glucose level because of cigarette smoke.

The experimental research design was pre and posttest control group design. Twenty two female mice were divided randomly into two groups: a control group (C) without exposure to cigarette smoke and the treatment group (T) with exposure to cigarette smoke for 20 days. Measurement of blood glucose levels using the OGTT.

The results of this study showed significant difference between groups ( $p < 0.05$ ) and the blood glucose level of T group was decrease compare with C group at 0, 30, 60, 90, 120 minutes of OGTT. The conclusion of this study, there are differences in the pattern of blood glucose levels in female mice exposed to the smoke-exposed female mice who did not smoke.

Keywords: smoke, blood glucose levels, diabetes

