

ABSTRACT

THE EFFECT OF BOILED THE RAMBUTAN FRUIT PEELS ON BLOOD GLUCOSE LEVEL REGULATION IN DIABETES MELLITUS MICE

A True Experiment Study Biokimia Laboratory, Surabaya

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Diabetes mellitus is a metabolic disorder caused by abnormality secretion of insulin secretion and insulin action in order to decrease glucose absorption in Diabetic case. *Naphellium lappaceum Linn* is predicted to be able to reduce blood glucose level. In world, Diabetes Mellitus care was 387 million in 2014.

This study was used the boiled of *Naphellium lappaceum Linn* fruit peels as intervention given to male mice of *Swiss Webster* line. Design used in this study was experimental research design with pre and post-test control group design. Total sampel were 28 mice which divided into four groups: (1) non-intervention positive control group, (2) group with 53,3% concentration of *Naphellium lappaceum Linn*, (3) group with 26,6% concentration, (4) group with 13,3% concentration. Data were analyzed using One Way Anova.

Result showed that group with 53,3% concentration decrease more fasting blood glucose level in mice after intervension ($\pm 80,14$ mg/dl). There was significant difference of random blood glucose levels between the control group and the group with 53,3% and 26,6% concentration ($p=0,029$ and $p=0,030$).

It can be concluded that the boiled of *Naphellium lappaceum Linn* fruit peel (in 53,3%,dose 0,5 ml/grbb) able to regulate the fasting blood glucose level and inhibit absorption of glucose in the digestive systems of mice with diabetes mellitus.

Keywords : *Diabetes mellitus, blood glucose level, naphellium lappaceum L*