The Effect of Brewed Salacca Coffee* (*Salacca edulis Reinw*) *on Random Blood Glucose Levels in Diabetes Mellitus Rats

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ABSTRACT

Diabetes mellitus is a chronic disease that happens either when the pancreas does not produce enough insulin or when the body can not use the insulin effectively where it produces. Brewed salacca coffee contains flavonoids that contribute to reducing random blood glucose levels. Flavonoids in brewed salacca coffee affect ROS to prevent diabetogenic action. The purpose of this study was to determine the effect of brewed salacca coffee on reducing random blood glucose levels in diabetes mellitus rats. This type of research is True experimental with a Pretest-Posttest Control Group Design approach. This study used 27 rats aged 2-3 months, weighing 200-300 grams which were divided into 3 groups. The negative control group was given standard rodent chow. The positive control group was induced using STZ, dextrose 10% and fed by standard rodent chow. The treatment group was administered with salacca coffee which is brewed by dosage 4 ml/day for 14 days and fed by standard rodent chow after induced STZ and dextrose 10%. Random blood glucose levels were measured by using *Glucose Oxidase – Peroxidase Aminoantypirin* (GOD-PAP) method. Data were analyzed using *Kruskall-Wallis* test followed by *Mann-Whitney* and *Wilcoxon* test. Decreasing random blood glucose in the treatment group by 95,44 mg/dl. There was a significant difference in random blood glucose levels in rats before and after treatment (p = 0,012). The result of deviation test shows that there was a differences between groups with p = 0,048. Giving brewed sallaca coffee effect in reduction random blood glucose in rats.

Keywords: Brewed Salacca coffee, Random Blood Glucose Levels, Diabetes Mellitus