Effect of Rosella Combination Red Guava Juice on Postprandial Blood Sugar in Diabetes Mellitus Rats

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ABSTRACT

Diabetes mellitus is a chronic disease characterized by increased blood sugar levels due to insulin resistance. The combination of red guava and rosella in the form of juice is an alternative drink in lowering blood sugar levels because of the antioxidant content in it. This study aims to determine the effect of rosella combination red guava juice on postprandial blood sugar levels of diabetes mellitus rats. This research method is True Experimental with a Pretest-Posttest Control Group Design. This study used 24 male wistar strain rats aged 2-3 months with a body weight of 200-250 grams. The rats were divided into 3 groups, namely the negative control group (K-) was given standard bio rat feed, the positive control group (K+) was given HFD and a single dose of STZ induction of 35 mg/kgBB, and the treatment group (P) was given a single dose of STZ induction HFD of 35 mg/kgBB, intervened with rosella combination red guava juice at a dose of 1.4 ml/rat/day . The results of this study showed that postprandial blood sugar levels before and after the intervention did not have significant differences between the negative control group ($p = 0.090$), the positive control group ($p = 0.690$), and the treatment group ($p = 0.499$). The results of the difference in blood sugar levels postprandial pretest and posttest also showed no significant difference between the negative control, positive control, and treatment groups ($p = 0.479$). There was no effect of giving rosella combination red guava juice on postprandial blood sugar levels in diabetes mellitus rats.

Keywords : Diabetes Mellitus, Red Guava, Rosella, Postprandial Blood Sugar