THE EFFECT OF JAMAICA CHERRY JUICE ON BLOOD SUGAR IN WHITE MICE WITH TYPE 2 DIABETES MELLITUS

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ABSTRACT

Background: Jamaican cherry (*Muntingia calabura L.*) contains ascorbic acid, fiber, beta-carotene, thiamine, riboflavin, and niacin are efficacious as antidiabetic. Saponin chemical compounds in Jamaican cherry have functioned as antioxidants that can emit the hormone insulin for sugar metabolism. The purpose of this study was to examine the effect of Jamaica cherry juice on blood sugar in white mice with type 2 diabetes mellitus (DM).

Subjects and Method: A randomized controlled trial was conducted in 30 female Wistar mice with DM induced by alloxan. The sample was randomly allocated into 5 groups included: (1) PARS ad libitum, (2) glibenclamide + PARS ad libitum; (3) Jamaica cherry juice 25%/100 g BW + PARS ad libitum; (4) Jamaica cherry juice 50%/100 g BW + PARS ad libitum; and (5) Jamaica cherry juice 75%/100 g BW + PARS ad libitum. The dependent variable was blood glucose level. The independent variable was Jamaica cherry juice. The data were analyzed by One Way Anova.

Results: Jamaica cherry juice 75%/100 g BW + PARS ad libitum (mean= 171.85) had the highest effect on the reduction of blood glucose level among all the five groups.

Conclusion: Jamaica cherry juice 75%/100 g BW + PARS ad libitum is effective to reduce blood glucose level in female Wistar mice with type 2 DM.

Keywords: type 2 diabetes mellitus tipe 2, *Muntingia calabura L*

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