

Effect of Consumption White Pare (*Momordica charantia L.*) and Rome Beauty Apple (*Malus sylvestris Mill*) Juice on the Decreases of Blood Glucose Level in Patient with Diabetes Mellitus Type 2

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ABSTRACT

Diabetes Mellitus is a state of hyperglycemia that occurs due to abnormalities of insulin secretion, insulin work, or both that can lead to various chronic complications. White pare and *Rome Beauty* Apple juice contains vitamin C that serves as an antioxidant and can decrease blood glucose. The purpose of this research is to find out the effect of white pare (*Momordica charantia L.*) and *Rome Beauty* Apple (*Malus sylvestris Mill*) on blood glucose level in patient with Diabetes Mellitus type 2 in Rogotrunan Lumajang Public Health Center. This study was *Quasi Experimental* with *Pretest-Posttest Control Group Design* in *Single Blind*. The sampling technique was *purposive sampling* with 40 respondent of patient with Diabetes Mellitus type 2 divided into 2 group. The first group was treated with 300 ml white pare and *Rome Beauty* Apple juice derived from 200 grams white pare and 350 gram *Rome Beauty* apple containing 35,9 mg of vitamin C on 3 times a day and the second group was a control group without consumed white pare and *Rome Beauty* apple juice. Statistical analysis used here was *paired t-test*, *independent sample t-test*, and anacova. There was significant decreases in *pre-test* and *post-test* blood glucose of $133,75 \pm 73,3$ in treatment group with white pare and *Rome Beauty* apple juice, and decrease of $16 \pm 43,5$ in control group. There was effect consumption white pare and *Rome Beauty* apple juice on the decrease of blood glucose level after controlled intake of carbohydrates, dietary fiber, and vitamin C with p value = 0,000 ($p < 0,05$). The conclusion of the research is white pare and *Rome Beauty* apple juice had significant effect on the decrease of blood glucose in patient with Diabetes Mellitus type 2.

Keyword: *Blood glucose level, DM Type 2, White pare and Rome beauy apple juice.*

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