

"Effect of Giving Bran Flour and Purple Sweet Potato Flour Against Blood Pressure In Metabolic Syndrome Patients "

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ABSTRACT

Metabolic syndrome (SM) is a collection of clinical symptoms including high blood pressure, high blood sugar and excess belly fat. Bran contains mainly bioactive components which are indicated to be able to lower blood pressure. In addition to bran, purple sweet potato can reduce blood pressure, which is contained in anthocyanins. anthocyanins show very strong anti-radical activity and can lower blood pressure. The purpose of this study was to determine the effect of giving bran flour cereal and purple sweet potato flour on blood pressure in patients with metabolic syndrome. This type of research is quasi-experimental (Quasy Experimental) with the research design used is pretest-posttest with control group design with a single blind application. The sample in this study were 16 respondents who were divided into 2 groups, namely 8 respondents in the treatment group who were given cereal flour and purple sweet potato flour at a dose of 210 grams / day and 8 respondents in the control group who were given cereal flour and rice flour (placebo) for 14 days. The results of this study were analyzed using the Wilcoxon and Mann-Whitney tests. The results of the analysis showed that there were differences in pre-test and post-test blood pressure in the treatment group with a p value of 0.010 for systolic blood pressure and diastolic blood pressure of 0.023 ($p < 0.05$). While the pre-test and post-test blood pressure between groups was not different with p value 0.071 ($p > 0.05$). Based on the difference between groups, it was found that there was a difference with a p value of 0.05 ($p < 0.05$).

Keywords: *Bran, Metabolic Syndrome (SM), Blood Pressure (BP), Purple Sweet Potatoes*