Effects of the Consumption of Black garlic on metabolic syndrome risk factors : A Double-Blind Randomized Controlled Trial

Abstract

Garlic (*) Allium sativum*It has been used as a traditional medicine and home remedy since ancient times and in many cultures to treat various diseases and health problems. Global garlic consumption is declining. Some people do not like to eat raw garlic because of its pungent taste and smell. Therefore, attention was focused on processing this food in order to facilitate consumption and bring its taste closer to people's tastes. In this study, individuals were included in the study based on the definition of metabolic syndrome and were randomly divided into three groups of consumers, 2 and 4 grams of black garlic and the control group. Consumption of raw garlic in three experimental groups lasted for three weeks. Before and after the intervention, 5 cc of blood sample was taken to determine the level of blood glucose. Blood pressure and body mass index were also measured. Finally statistical analysis using the method T-testOne-way and with the help of software SPSS

Version 25 was done. The results of the average data show that consumption of black garlic, 2 and 4 grams, for three weeks has an effect on reducing all health indicators compared to the values before consumption and the greatest effect was achieved with daily consumption of 4 grams of black garlic. Analysis of the results showed that between consuming black garlic and reducing systolic and diastolic blood pressure BMIThere is a positive and significant relationship between the body (.) p≤0.05

Among these, for blood sugar, it was found that daily consumption of black garlic of 4 grams for three weeks () p≤0.05

It has more effect on lowering blood sugar than consuming 2 grams of black garlic (.) p! 0.05Based on the results of this study and similar studies, it can be concluded that black garlic can be used as a safe supplement to help prevent the progression of health problems associated with metabolic syndrome. Keywords: Metabolic syndrome, Black garlic, Body mass, Blood pressure, Blood sugar