

عنوان مقاله:

The Effects of Dark Chocolate Consumption on Oxidative Stress and Blood Pressure in Patients with Metabolic Syndrome: A Randomized Clinical Trial

محل انتشار:

فصلنامه تغذیه و امنیت غذایی، دوره 1، شماره 1 (سال: 1395)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

Background: Consumption of dark chocolate has been often hypothesized to have a role in the prevention of chronic diseases. The objective of this study was to investigate the effects of consumption of dark chocolate (DC) on serum oxidative stress and blood pressure (BP) in patients with metabolic syndrome (MetS). **Methods:** An 8-week parallel randomized clinical trial involving 114 patients with MetS was conducted on stable medication in 2014. Participants were randomly assigned to three groups: 1) consume 40 g/d DC (40G), 2) consume 20 g/d DC (20G), and 3) consume no DC as the control group (CG). BP, radical scavenging activity of 1-diphenyl-2-picrylhydrazyl (DPPH), and malondialdehyde (MDA) were measured at baseline and after 8 weeks of intervention. **Results:** Mean age, weight, and body mass index (BMI) of participants were 51.38 ± 6.95 y, 77.34 ± 12.86 kg, and 28.65 ± 4.4 kg/m², respectively. No significant differences were found among the three groups in relation to these variables after the intervention. The mean change of systolic blood pressure in 40G, 20G, and CG were 0.31 ± 1.81 , 0.37 ± 1.65 , and 0.26 ± 1.56 mmHg ($P = 0.3$), respectively. These figures for diastolic blood pressure were obtained as 0.08 ± 1.03 , -0.02 ± 1.12 , and 0.22 ± 1.03 mmHg. No significant changes were observed in MDA and DPPH between three groups. **Conclusion:** Even daily intake of 40 g of DC with 76% purity for an 8-week period had no effect on body weight, BMI, BP, and oxidative stress in patients with MetS.

کلمات کلیدی:

Cocoa; Dark chocolate; Metabolic syndrome; Oxidative stress biomarkers

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