Concentrated pomegranate juice improves lipid profiles in diabetic patients with hyperlipidemia.

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Source

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Abstract

This study assessed the effect of concentrated pomegranate juice (CPJ) consumption on lipid profiles of type II diabetic patients with hyperlipidemia (cholesterol >/= 5.2 mmol/L or triacylglycerol >/= 2.3 mmol/L). In this quasi-experimental study 22 otherwise healthy diabetic patients, 14 women (63.6%) and eight men (36.4%), were recruited from among patients referred to the Iranian Diabetes Society. The patients were followed for 8 weeks to establish a baseline for normal dietary intake before beginning the CPJ intervention. During the pre-study period a 24-hour food recall and food records (recording flavonoid-rich foods) were completed every 10 days. At the end of the eighth week, anthropometric and biochemical assessments were done. Thereafter the patients consumed 40 g/day of CPJ for 8 weeks, during which time dietary assessment was continued. After completing the study, anthropometric and blood indices were again evaluated. The Wilcoxon signed test was used for statistical analysis. A value of P <.006 was considered significant. Mean (+/- SD) age, weight, and duration of diabetes were 52.5 +/- 5.2 years, 71.5 +/- 10.3 kg, and 7.9 +/- 6.6 years, respectively. After consumption of CPJ, significant reductions were seen in total cholesterol (P <.006), low-density lipoprotein (LDL)-cholesterol (P <.006), LDL-cholesterol/high-density lipoprotein (HDL)-cholesterol (P <.001), and total cholesterol/HDL-cholesterol (P <.001). But, there were no significant changes in serum triacylglycerol and HDL-cholesterol concentrations. Anthropometric indices, physical activity, kind and doses of oral hypoglycemic agents, and the intakes of nutrients and flavonoid-rich foods showed no change during the CPJ consumption period. It is concluded that CPJ consumption may modify heart disease risk factors in hyperlipidemic patients, and its inclusion therefore in their diets may be beneficial.