


Abstract

Diet Quality Assessment and Lipid Profile of Younger Adult Men with Hypercholesterolemia [†]

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Abstract: The prevalence of hypercholesterolemia caused by an unhealthy lifestyle is increasing worldwide and is associated with an increased risk of cardiovascular diseases. One of the causes of hypercholesterolemia is an unhealthy diet. The aim of this study was to assess the diet quality by determining the daily intake of energy and nutrients in men with an increased serum concentration of total cholesterol (≥ 5.0 mmol/L) and LDL-cholesterol (≥ 3.0 mmol/L) and to determine whether there is an association between lipid profile and dietary parameters. The participants were males aged 20 to 40 years ($n = 52$). The average daily energy, macronutrient, and micronutrient intake was evaluated using the 24-h recall for two non-consecutive days. The average daily intake of total fat ($39.2 \pm 8.3\%$ kcal) and saturated fatty acids ($13.4 \pm 4.1\%$ kcal) was higher than recommended, and the intake of carbohydrates ($41.7 \pm 9.6\%$ kcal) and fiber (15.6 ± 12.4 g) was insufficient. The average daily intake of sodium and phosphorus was too high, while the intake of potassium, magnesium, and calcium was deficient. The intake of all vitamins, except for vitamin B₃ and vitamin B₆, was also insufficient. The average concentration of HDL-cholesterol in the participants was adequate (1.4 ± 0.2 mmol/L), but the concentration of triglycerides was elevated (1.9 ± 1.3 mmol/L). A statistically significant positive correlation was found between age and triglyceride concentrations ($r = 0.35$; $p < 0.05$). In this study, the influence of energy intake and observed nutrients on the lipid profile was not determined.



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