Abstract

Background: Numerous studies have shown an inverse association between cholesterol’s concentration associated with High-Density Lipoprotein Cholesterol (HDL-C) and cardiovascular risk. The present study intends to investigate the possible relation between Apolipoprotein A (ApoA1) and HDL-C as a new strategy to reduce cardiovascular risk. Aim: was determine the effect of ApoA1 in cholesterol’s metabolism through its influence on HDL-C in young adult population. Methods: One clinical trial, controlled, randomized, double-blind, providing a commercial milk, “Naturcol”, with sterols for 3 weeks (n = 19) and placebo (n = 16). A questionnaire Ad Hoc was designed and a complete anthropometric study was made. SPSS 21.0 was used to analyse the data. Results: Significant differences were observed between sterol milk and placebo in a single marker, Low-Density Lipoprotein Cholesterol (LDL-C). A linear dispersion of data between HDL-C and ApoA1 was found, both at the beginning and end of the intervention (Person Correlation = 0.846 and 0.903, respectively). High dependency measures by linear regression (R2= 0.715 and 0.816, respectively) were observed. Conclusion: A significant relation between HDL-C and ApoA1 was proven. Taking into account the importance that HDL-C levels seem to have on cardiovascular health, ApoA1 is presented as an important clinical marker to improve heart function as well as to reduce cardiovascular risk.

Keywords

ApoA1, Cholesterol, Cardiovascular risk, Plant sterols, High-density lipoproteins (HDL-C).