Abstract

Introduction: Epidemiological studies have shown an association between coronary heart disease and emerging cardiovascular risk factors, such as, levels of fibrinogen and high-sensitivity C-reactive protein (hs-CRP). Objectives: To verify the ability of biochemical indicators in discriminating changes in the levels of hs-CRP and fibrinogen, in apparently healthy adult men. Methods: Were evaluated 130 apparently healthy men (20-59 years), having measurement of weight and height. Biochemical measurements (lipid profile, fasting glucose, uric acid, hs-CRP and fibrinogen) were performed. Body mass index, total cholesterol/HDL-c and LDL-c/HDL-c ratios were calculated. It was considered as the cutoff point for hs-CRP values 0.12 mg/dL and for fibrinogen the 50th percentile of the evaluated sample. Results: The uric acid showed the best correlation ($r = 0.325$) and the higher area under the ROC curve (0.704 ± 0.054), showing greater ability to discriminate higher levels of hs-CRP ($p < 0.01$). The total cholesterol/HDL-c ratio ($r = 0.222$) and the LDL-c/HDL-c ratio ($r = 0.235$) showed the best correlations and the higher areas under the ROC curves (0.624 ± 0.049 and 0.624 ± 0.049) in identifying higher levels of fibrinogen ($p < 0.05$). Conclusion: The uric acid and the total cholesterol/HDL-c and the LDL-c/HDL-c ratios showed greater ability to identify changes in the levels of hs-CRP and fibrinogen, respectively. It was suggested the use of biochemical markers in the clinical practice, in order to establish preventive action for cardiovascular disease in apparently healthy adult men.

Keywords

Lipoproteins. Uric Acid. Fibrinogen. C-reactive protein. Inflammation