inflammation, it has become object of research to study its interaction with the endothelium. The aim of this study is to compare the levels of vitamin D in diabetic and hypertension patients. Methods: It is a cross sectional study involving patients with diabetes and hypertension. They will be divided in 2 groups according to the levels of vitamin D, group 1 with usual levels (equal or above 30 ng/mL) and group 2 with insufficiency (levels below 30 ng/mL). Vitamin D will be measured by chemiluminescence essay by Randox Laboratories and cut-off points were determined according to information. Hypertensive patients with diabetes who were at least 21 years old at admission were included. Patients with cancer, AIDS and patients in chronic use of corticosteroids and in hemodialysis were excluded. Variables were tested depending on their distribution and parametric or non-parametric tests were chosen accordingly. Shaprio-Wilk test result. Linear and logistic models were tested. The level of significance used was 5%. Results: Thirty-eight men and forty women were analyzed. The mean age was 62.1 years and the average of BMI was 30.3. The average level of vitamin D was 17.25 ng/mL. Vitamin D was correlated with inflammatory biomarkers like interleukin-6 and homocystein. Conclusion: The present study clearly states the occurrence of lower levels of vitamin D in a general population.

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A40984
Concordance between plasma apolipoprotein B levels and cholesterol indices among patients receiving statins treatment
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Introduction: Apolipoprotein B (apoB) has been considered a better predictor of cardiovascular risk as compared to the low density lipoprotein (LDL). In addition, evidence has shown low correlation and discordance between serum apoB and LDL cholesterol (LDLc) in patients not receiving lipid-lowering therapy. In those under lipid-lowering therapy, the association between lipid parameters and apolipoproteins is not yet defined. The objective of the present study was to evaluate the effect of treatment with simvastatin 20 mg on serum levels of apoB, LDLc, non-HDLc and the correlation between these analytes before and after therapy. Methods: We selected 101 hypercholesterolemic individuals, non-smokers and non-diabetics with age between 30–70 years, from primary care centers in Ouro Preto, MG. Total cholesterol (TC), LDL-c, HDL-c, triglycerides, apoA and apoB were measured in blood samples taken after 12–14 h fast. Patients were treated by simvastatin 20 mg for 60 days. Results: A significant reduction was found in the concentration of LDL-c, TC, apoB, non-HDLc, triglycerides, apoB/apoA-I, CT/LDLc, LDLc/HDLc and non-HDLc/HDLc (p ≤ 0.05) after treatment with simvastatin. Spearman's correlation coefficients between apoB, LDLc, non-HDLc was higher after treatment with simvastatin than before. Kappa analysis showed very low agreement between apoB and LDLc levels (κ = 0.168). Conclusion: ApoB and the apoB/apoA-I ratio were the markers with greater reduction after therapy with simvastatin 20 mg. Correlation and concordance of serum levels of apoB, LDLc and non-HDLc was increased after 60 days of treatment with simvastatin 20 mg.

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A40995
Stroke risk: Assessment by cutaneous thermography with infrared radiation
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Background: Cerebrovascular accident can be based on pathophysiological endothelial dysfunction, sometimes being evaluated by methods that examine the vascular tone in the face of maneuvers that induce ischemia and reperfusion. The thermoregulation is mediated by autonomic nervous system whose sympathetic motor fibers produce vasodilation or vasoconstriction in the microcirculation, depending on activation degree. Objective: The aim of this study was to assess whether infrared thermography is capable of evaluating the risk of stroke using the phenomenon of ischemia–reperfusion as endothelial function assessment model. Materials and methods: We evaluated 55 subjects through analytical cross-sectional design and they were evaluated by Framingham score (FS) for stroke. Infrared thermography of distal phalanges of right and left hands was performed, before and after supra-systolic compression of the arm maneuver for 5 min. Results: There were statistically significant for all thermal variables. The FS increased 1.14% for each point on the maximum rate of ischemia and 1.18% for each point on the maximum temperature obtained between 6 and 15 min in the right hand, lesser the maximum ischemia temperature. The altered neurovascular reactivity was able to distinguish those at higher risk of stroke (4.9 vs 8.8, p = 0.02). Conclusion: Infrared thermography variables showed good correlations with the FS in 10 years. This result suggests that the method may be used in the future to stratify stroke risk.

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A40599
Arterial tissue and plasma concentration of enzymatic-derived oxysterols are associated with atherosclerotic disease and systemic inflammatory activity
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Introduction: Oxysterols are end-products of cholesterol metabolism and undergoes oxidation via both enzymatic and free radical-mediated mechanisms, generating a wide range of oxidized derivatives of cholesterol. In contrast with oxidative stress-driven metabolites, enzymatic-derived oxysterols are scarcely studied in their association with atherosclerotic disease in humans. The objective of this study was to quantitatively assess the enzymatic-derived oxysterols in plasma and arterial tissue from individuals with or without atherosclerotic disease. Methods: 24S-hydroxycholesterol (24S-HC), 25-hydroxycholesterol (25-HC), and 27-hydroxycholesterol (27-HC) were quantified in plasma and arteries with atherosclerotic plaques from 10 individuals (54–84 years) with severe peripheral artery disease (PAD) as well as arteries free of atherosclerotic plaques from 13 individuals (45–78 years, controls). The presence of atherosclerotic lesions was confirmed by microscopy. Results: Plasma 25-HC was higher in PAD individuals than in