

study of case, a young patient with dyslipidemia in statin use only, with reports of chronic fatigue, was selected to receive supplementation of CoQ10 (100 mg) and *Withania somnifera* (300 mg dry extract), in capsules, blindly for 30 days each, in addition to answering validated questionnaire on fatigue (Piper Fatigue Scale-Revised [PFSR]), usual dietary recall and perform biochemical tests after each period. Results: Both supplementation shows improved their symptoms of fatigue reported (PFSR basal 69,1% versus CoQ10 50,0% and *Withania somnifera* 43,2%), but there was a change of biochemical parameters for total cholesterol (185 mg/dL to 313 mg/dL), high density lipoprotein (HDL) (43 mg/dL to 55 mg/dL), LDL (124 mg/dL to 226 mg/dL) and triglycerides (91 to 159 mg/dL) after use of *Withania somnifera*, in comparison with CoQ10, without alter in your habitual dietary. Conclusion: Therefore, the use of herbal medicine can be a viable alternative and effective supplementation in patients reporting fatigue, but further studies are needed for the population in continuous use of statins, to assess whether there is a hypocholesterolemic action of competition between them.

doi:[10.1016/j.bbacli.2015.05.042](https://doi.org/10.1016/j.bbacli.2015.05.042)

A40934

Isolated hypercholesterolemia and consumer of cardioprotective foods

Renata A. Silva, Cristiane Kovacs, Carlos Daniel Magnoni

Instituto Dante Pazzanese de Cardiologia, Sao Paulo, SP, Brazil

Introduction: Diet is one of the changes in lifestyle recommended for dyslipidemic patients, such as prevention of cardiovascular events. Nutrition aims to stimulate the consumption of cardioprotective food, the functional bioactive compounds: fiber, omega 3–6–9 and polyphenols. Objective: Reduction of plasma levels of total cholesterol and fractions, in a hyperlipidemic patient without medication. Methodology: hyperlipidemic patient received an orientation cardioprotective foods (olive oil, yogurt, green tea, flaxseed, dark chocolate, fish, oats, soybeans and by-products, grape juice, nut, avocado), with the recommendation for daily consumption to reduce hypercholesterolemia, as the IV Guideline on Dyslipidemia. The inclusion in the food routine was free choice. A food frequency questionnaire of these foods and biochemical tests were obtained before and after a follow-up three months. We selected a woman of 44 years without use of medications in primary prevention. Results: Over the frequency of cardioprotective foods, the patient reported using in the initial evaluation, only olive oil and fish, in the recommendations. During treatment, the patient included, besides the two already earlier: yogurt, linseed, dark chocolate, oats, whole grape juice and oilseeds. Other foods (green tea, soybeans and by-products and avocado) were included, but at a lower frequency than the one suggested. The plasma levels decreased, in basal versus 90 days, 31.41% LDL-cholesterol, 8.19% HDL-cholesterol and 11.00%

triglyceride. The anthropometric measurements were reduced too: weight (61.1 to 59.0 kg), body mass index (23.59 to 22.77 kg/m²) and waist circumference (84.5 to 82.5 cm). Conclusion: A frequent use of cardioprotective foods, can reduce the plasma levels of LDL-cholesterol, with low interference in HDL-cholesterol.

doi:[10.1016/j.bbacli.2015.05.043](https://doi.org/10.1016/j.bbacli.2015.05.043)

A40952

Cyclo-oxygenase gene expression in acute myocardial infarction: A case report

Mariana J. Rigolo, Marcelo R. Bacci, Neif Murad, Antonio C.P. Chagas

Faculdade de Medicina do ABC, Santo Andre, SP, Brazil

Introduction: The cyclo oxygenase (COX) enzymes are directly involved in inflammation. Arachidonic acid is converted by COX to prostaglandins (PG). PG participates in platelet activation, vasoconstriction, gastrointestinal protection and bronchodilation. These processes show an important association of COX-2 levels with major adverse cardiovascular events. This effect suggests protection of COX-2 in individuals who do not have it inhibited artificially. The objective of this report is to demonstrate the association between high COX-2 expression during the course of a patient with acute myocardial infarction (AMI) undergoing coronarography. Case report: A 54 year-old female patient, African descent, hypertensive and former user of cocaine was admitted through the emergency room with chest pain and anterior wall ischemia in the EKG. About 45 days before admission, she had been treated with angioplasty with conventional stenting in the anterior descending artery. Serial blood samples of each 6 h were made to assess the gene expression of COX-2 and NF-kB activity. Our results showed a rise of COX-2 gene expression and NF-kB after AMI diagnosis and coronarography during time. Conclusion: Atherosclerosis is the major cause behind major adverse cardiovascular events. The COX-2 has increased its expression in symptomatic atherosclerotic plaques however plate regions have fat cells that have no expression, suggesting that the mechanism behind its regulation is more complex. Areas with higher expression of COX-2 with great macrophage activity are subject to instability and rupture, triggering the cascade of events culminating in necrosis. In contrast, blocking the COX-2 action aggravates ischemia because of its vasoconstrictor effect with consequent increase in myocardial oxygen consumption. The balance between the intensity of the inflammatory reaction and plaque instability seems to be the scales between the concentration of PG E2 which is pro instability of the plaque, and PG I2 a natural pro angiogenesis stimulator

doi:[10.1016/j.bbacli.2015.05.044](https://doi.org/10.1016/j.bbacli.2015.05.044)