

## ANTIOXIDANT MARKERS AND CARDIOVASCULAR RISK FACTORS IN AZOREAN SUBJECTS WITH CORONARY ARTERY DISEASE

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**OBJECTIVES:** To evaluate some blood antioxidant parameters in azorean subjects with coronary artery disease (CAD) previously submitted to percutaneous revascularization (PCI), by considering some cardiovascular risk factors.

**BACKGROUND:** The death rate from CAD in Azores is about twice than in mainland Portugal. Atherosclerosis (AT) is the main cause of CAD and reactive oxygen species are involved in many proatherogenic events. Oxidative stress is the main underlying mechanism for several cardiovascular risk factors, which additionally supports its central role in cardiovascular diseases.

**METHODS:** Blood activities of antioxidant enzymes - superoxide dismutase and glutathione peroxidase - as well as plasma total thiols and glutathione concentrations, and serum vitamin E levels were assessed in 37 PCI subjects (aged 40 to 65 years) from the island of San Miguel (The Azores Archipelago, Portugal). The control group was formed by apparently healthy subjects. Data were analysed by taking into account gender, dislipidemia and total plasma homocysteine (tHcy) concentration.

**RESULTS AND CONCLUSIONS:** A significant decrease in serum vitamin E concentration (10%) was found in PCI patients as compared to controls, namely in men. No changes were found in the other antioxidant markers. tHcy concentration was increased by 20% in the PCI group, particularly in women, where plasma triglyceride levels were about twice than in the respective controls. Concerning men tHcy levels were about the same in both groups, where they corresponded to a moderate risk of AT. Thus tHcy levels appear to constitute a more sensitive marker of AT progression in women than in men.

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**PRO-OXIDANT/ANTIOXIDANT BALANCE IN AZOREAN SUBJECTS WITH CORONARY ARTERY DISEASE**

Atherosclerosis (ATH) and related vascular diseases are the first cause of morbidity and mortality in Portugal, including the Azores' Archipelago. Oxidative stress is a mechanism with a central role in the pathogenesis of ATH and other chronic diseases.

**OBJECTIVES:** To assess some blood oxidant and antioxidant parameters in azorean subjects with coronary artery disease previously submitted to percutaneous revascularization (PCI).

a lack in the antioxidant defence mechanisms in the PCI patients, since Se-GPx, SOD activities and plasma total thiols and GSH levels were unchanged.

Finally PCI men should be supplemented with vitamin E.

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