عنوان مقاله:

Correlation between Lipid Peroxidation and Lipoprotein (a) Levels in Patients with Coronary Artery Disease

محل انتشار:

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خلاصه مقاله:

Coronary Artery Disease (CAD) is the primary cause of mortality in developed and developing countries. Recently, oxidative stress has been reported to be associated with an increased incidence of atherosclerosis and cardiovascular disease. This study aims to investigate the levels of Vitamin C, Uric acid, bilirubin, and lipoprotein (a) (Lp (a)) in patients diagnosed with CAD and their relationship with Malondialdehyde (MDA) concentration. This study consists of ۴۷ control subjects (۲۸ women, ۱۹ men) and ۵۳ patients (۱۵ women, ۳۸ men) with CAD. Blood samples were collected after overnight fasting, and the sera were separated with low-speed centrifugation. MDA levels were determined through the TBARS method. Vitamin C and Lp (a) were determined through dinitrophenylhydrazine photometry and electro immunoassay (EID(, respectively. Total bilirubin and Uric Acid (UA) were determined immediately by routine laboratory methods. The mean serum MDA and Lp (a) levels were higher in patients with CAD compared to the control group (MDA: ۰.۸۹±۰.۴۱ µmol vs. ۰.۶۶± ۰.۲۴ µmol, p<۰.۰۵), Lp (a): ۳۵±۲۰ mg/ml, vs. ۲۶.۲±۱۴.۶ mg/ml, p=<۰.۰۵). However, no significant correlation was observed between the patients with Lp (a) in their serum MDA and the control group. The mean total bilirubin level was higher in the control group compared to the CAD patients (۱.۰۳۰ vs. ۰.۸۳۰, p<۰.۰۵). A

significant inverse relationship existed between the patient's bilirubin, vitamin C levels, and MDA. Other differences and relations were insignificant. Also, there was no significant difference between the frequency of APOA۱ -۷۵ genotypes (G/G, G/A, A/A) in the CAD patients versus the control group (P>۰.۰۵). Finally, the elevated serum levels of MDA and Lp (a) were known to be independent risk factors for coronary heart disease. Also, there was a significant .correlation between serum MDA levels and age, bilirubin, and vitamin C in patients with CAD

کلمات کلیدی:

Cardiovascular diseases, Coronary artery disease, Lipoprotein(a), oxidative stress