عنوان مقاله:

Association Between Plasma Lipids Profile and Lipids Oxidizability in Healthy Men

محل انتشار:

فصلنامه گزارش های زیست فناوری کاربردی, دوره 6, شماره 2 (سال: 1398)

تعداد صفحات اصل مقاله: 4

نویسندگان:

Ameneh Jafari - *Proteomics Research Center, School of Allied Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

Bemanali Jalali Khanabadi - *Department of Biochemistry, Shahid Sadoughi University of Medical Sciences, Yazd, Iran*

Naser Nejadi - *Department of Clinical Biochemistry, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran*

Behrouz Farhadihosseinabadi - *Student Research Committee, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran|Department of Biotechnology, School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

خلاصه مقاله:

Introduction: The aim of the present study was to determine the susceptibility of lipids to Cu-induced peroxidation in diluted plasma and its relation with plasma lipids and lipoproteins in a group of healthy men. Materials and Methods: In 100 healthy men volunteers (age range 20-55 years with a mean of 36.8±10.3 years), fasting plasma levels of lipoprotein (a) [Lp (a)], total cholesterol (TC), high-density lipoprotein-cholesterol (HDL-C), low-density lipoprotein-cholesterol (LDL-C), and triglycerides (TG) were assayed. The Cu2+-induced lipid peroxidation was evaluated. Lipid oxidation was estimated by monitoring the change of conjugated dienes in the diluted plasma following the addition of Cu2+. The kinetic curves of the accumulation of lipid peroxide products were prepared, and a number of quantitative parameters including lag time, time of maximal oxidation rate (T-max), and maximal accumulation of absorbing products (OD-max) were evaluated. Results: The TG concentrations were positively correlated with lag time and T-max (r=0.33, P < 0.01 and r=0.24, P < 0.05) respectively. Also, TC and LDL-C were positively correlated with OD-max (r=0.28, P < 0.01 and r=0.26, P < 0.05 respectively), and HDL-C was negatively correlated (r=-0.23, P < 0.05) with T-max. No significant correlation was observed between other variables and lipid oxidizability parameters. Conclusions: Results of this research indicate that TG increased the resistance of LDL and VLDL against initiation of lipid oxidation. .In addition, HDL-C induced the susceptibility of lipid oxidizability

کلمات کلیدی:

Diluted Plasma, copper, Lipid Oxidizability, Healthy men