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EVALUATION OF AUTOANTIBODY AGAINST MODIFIED LDL LEVELS IN PATIENTS WITH CARDIOVASCULAR DISEASES

Sedigheh Asgari, Mojgan Gharipour, Gholamali Naderi, Babak Sabet, Alireza Khosravi, Mohammad Hashemi

Abstract:

Background: Atherosclrosis is a process that initiated with hypercholestrolemia and fatty streak formation. Previous studies showed oxidative modification of LDL render immunogenic and autoantibodies to epitopes of oxidized LDL. Oxidized LDL (OX-LDL), has antigenic properties. Antibodies against oxidized LDL have been proposed to be independent predictors of atherosclerosis development. The main aims of the current study were to compare antibody titers to different types of oxidized LDL (Cu+2-LDL, Malondialdehyde-LDL) and Native-LDL between angiographically documented coronary patients, non-documented patients and healthy subjects. Correlation between autoantibodies against oxidized LDL and increased risks of cardiovascular diseases has been shown. Methods: As a case-control study, we evaluated angiographically documented coronary patients, non-documented patients and healthy subjects to measure anti-OX-LDL autoantibody levels. Enzyme-linked immunosorbent assay was used to measure anti-OX-LDL autoantibodies. ANOVA test used for statistical analysis. Results: Titers of anti-Malondialdehydo-LDL autoantibodies were 3.55 ± 0.415, 0.361 ± 0.20, 0.093 ± 0.078 respectively in each group ($P<0.005$). There was not statistically meaningful difference, between native-LDL and Cu+2-LDL antibodies. Conclusion: It seems the titre of autoantibodies against OX-LDL considered as a predictor of progression of atherosclerosis. Our data provide further support for a role of oxidatively modified LDL in atherogenesis.

Keywords:

Autoantibody against OX-LDL

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