

The autoantibody expression against different source of oxidized low density lipoprotein in patients with acute myocardial infarction

王子哲

Wang TC;Hsu CC;Chin YP;Lin YL

摘要

Abstract

The aim of this study was to examine the expression of antibodies against two different sources of low density lipoprotein (LDL) that were oxidized by CuSO₄, in patients with early stage of acute myocardial infarction (AMI). When LDL purified from sera with high level of LDL was used as a modified antigen, the results indicated that the titers of antibodies against the oxidized LDL in 30 patients were increased by 135% compared to those in normal subjects; however, the titers of antibody against modified LDL purified from normal-range LDL in the same patients were only slightly increased by 52%. Comparing the levels of autoantibody expressed in the high LDL sera group, high triglyceride sera group, and AMI patients sera group (total of 41; in addition to 30 AMI patients, 11 more sera of AMI patients were collected), the amount of autoantibody against the oxLDL purified from high LDL sera in AMI patients sera group was significantly increased up to 195%. In contrast to AMI patients, the sera titers against the same antigen in two subject groups with either high LDL or high triglyceride are only 50% higher than normal subjects. Moreover, the ratio of thromboxane B₂ over 6-keto-prostaglandin F_{1a} (6-keto-PG F_{1a}) in the acute myocardial infarction patients was 1.79, which is much lower than the normal subjects, 4.19. Concluding from the above observations, we suggest that the expression level of anti-oxidized LDL antibody may play a role on the pathogenesis of acute myocardial infarction disease, but is independent with the levels of thromboxane A₂ and prostacyclin in the examined sera.

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