A comparative study of anti-phosphatidyl Inositole antibodies in patients with myocardial Infarction and healthy subjects

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ABSTRACT

Immune system and inflamation is widely known to play a key role in the development and progression of cardiovascular diseases. Anti-Phospholipid (aPL) antibodies may act in the induction of immunological response leading to the development of Acute Myocardial Infarction (AMI). Anti-Phosphatidyl Inositole (PI) Antibody (Ab) has been seen in various diseases including rheumatoid arthritis, systemic lupus erythematosus and anti-phospholipid antibody syndrome. Although there are a few studies on the association of some autoantibodies with AMI, more epidemiological data are required to confirm their significance as independent risk factors in cardiovascular diseases. Moreover, the data on the relationship of autoantibodies with traditional risk factors of AMI is rare. The study of anti-PI Ab in AMI may lead to understand of etiology of ischemic heart disease. This study was conducted to determine whether prevalence of anti-PI Abs, in patients who had AMI and to analyze their association with traditional cardiovascular risk factors. The prevalence of anti-PI IgG and IgM in a well characterized group of patients with AMI as a case group and in age and sex matched healthy subjects as control group. Sera from the case and the control groups were tested to evaluate the presence of IgG and IgM isotypes to anti-PI by ELISA method. The prevalence of anti-PI IgG and also IgM in the case group resulted significantly higher than in the control group with AMI ($p<0.005$). The findings of this study suggest that anti-PI Abs seemed to have a role in AMI independent risk factors for AMI and may represent a link between autoimmunity and atherosclerosis in patients with AMI. Comprehensive studies are recommended to explore the exact role of anti-PI Abs in AMI.

Keywords: Anti-Phosphatidyl Inositole (PI) Antibodies, Acute Myocardial Infarction (AMI), Anti-Phospholipid (aPL) Antibodies, Cardiovascular Ischemia