Changes in Plasma Anti-Annexin A5 Antibody After Acute Myocardial Infarction

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Abstract

Background: Anti-annexin A5 antibodies (aANVAs) are thought to have the capacity to cause thrombosis and to be a risk factor for cardiovascular diseases. The present study aimed to detect changes in aANVAs in acute myocardial infarction (AMI) on admission and 10, 40, and 70 days after the acute phase.

Methods: Forty-five patients with confirmed AMI were selected for analysis. Plasma aANVAs were measured by enzyme-linked immunosorbent assay (ELISA) on admission and 10, 40, and 70 days after AMI.

Results: Significant positive cases of aANVAs were observed during the follow-up ($P<0.001$). The positive cases of aANVAs were more during a 70-day period than on admission ($P=0.004$) and 10 days ($P=0.008$) and 40 days ($P=0.016$) following AMI. No significant increase was found in the plasma concentration of aANVAs during the follow-up ($P>0.05$) .

Conclusions: A significant increase was observed in aANVAs-positive cases on the 70th post-AMI day. The increase may indicate the existence of a hyperactive coagulopathy state during this period. (Iranian Heart Journal 2022; 23(3): 69-76)

Keywords: Cardiovascular disease, Acute myocardial infarction, Annexin, Anti-annexin A5