PLASMA CATESTATIN LEVEL IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION AND ITS CORRELATION WITH VENTRICULAR REMODELLING

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Objectives  The evaluation of ventricular remodelling and functional recovery are essential in predicting the prognosis of patients with acute myocardial infarction (AMI). In the current study, we detected the plasma catestatin in patients with acute myocardial infarction, and investigated the association between plasma catestatin and heart function, as well as ventricular remodelling.

Methods  Fifty-eight consecutive patients, who were admitted within 12 h of the onset of their ST-segment elevation myocardial infarction symptoms, were prospectively recruited. Circulating catestatin was measured by ELISA. All patients received echocardiography examination during the first week; 31 patients received a re-examination of echocardiography at 3rd month after myocardial infarction.

Results  Plasma catestatin on the time of admission was significantly higher than normal controls. The level increased further during the first week of AMI. At 3rd month after AMI, the plasma level of catestatin was comparable to normal controls. The plasma level of catestatin was correlated with anterior AMI and left ventricular ejection fraction (LVEF) in acute stage. Correlation analysis showed that plasma level of catestatin on admission, on day 3, day 7 and plasma level of BNP on day 7 closely correlated with indexes of ventricular remodelling at 3rd month after the onset of AMI.

Conclusions  Plasma catestatin levels elevated after acute myocardial infarction. Early elevation of catestatin correlated with anterior myocardial infarction and LVEF. Plasma catestatin after the onset of AMI could predict the magnitude of progressive ventricular remodelling 3 months after acute myocardial infarction.