

論 文 要 旨

Relationship between vascular endothelial growth factor and leftventricular dimension in patients with acute myocardial infarction

下川原 裕人

tBackground: Although vascular endothelial growth factor (VEGF) is elevated in patients with acutemyocardial infarction (AMI), the clinical significance of its elevation remains unclear. The present studywas designed to determine the relationship between VEGF and left ventricular dimension in patientswith AMI.Methods and results: Plasma VEGF levels were examined by enzyme-linked immunosorbent assay dailyfor one week and then weekly for four weeks in 38 patients with AMI (65.4 ± 1.7 years). Left ventricu-lography was performed at 14 days, 6 months, and 2 years after the onset of AMI. Plasma VEGF levelswere significantly elevated and reached a peak on day 6. Peak plasma VEGF levels positively correlatedwith both end-diastolic and end-systolic volume indices at 14 days after the onset of AMI. When patientswith AMI were divided into two groups according to plasma VEGF levels on admission, left ventricularvolume indices were higher in the high VEGF group than in the low VEGF group at the subacute phase ofAMI (14 days). These differences were no longer present in the chronic phase of AMI.Conclusion: Plasma VEGF levels were increased in patients with AMI, and peak levels were associatedwith left ventricular volume indices in the subacute phase, suggesting an important role of endogenousVEGF in the left ventricular dimension in patients with AMI.