

Hepatocyte Growth Factor and E-Cadherin in Acute Pancreatitis. Time Course and Early Assessment of Disease Severity

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Objectives To evaluate the hepatocyte growth factor (HGF) and E-cadherin (EC) time course in the early phases of acute pancreatitis and to explore the usefulness of these molecules in assessing the severity of the disease. **Patients** Sixteen consecutive acute pancreatitis patients (7 males, 9 females; mean age 62.8 years, range 30-79 years) admitted to the hospital within 6 hours after the onset of pain; 16 age- and sex-matched healthy subjects were also studied. Eleven patients had mild pancreatitis and 5 had a severe disease. The acute pancreatitis was of biliary origin in 7 patients (43.8%), due to ERCP in 4 (25.0%), due to alcohol abuse in 2 (12.5%) and idiopathic in the remaining 3 (18.8%). **Methods** HGF and EC were quantified on hospital admission and for the following 2 days by using commercially available kits (Human HGF Immunoassay and Human sE-Cadherin Immunoassay; R&D Systems Inc., Minneapolis, MN,

USA). Data were analyzed by means of the Kruskal-Wallis and Wilcoxon tests. **Results** Serum HGF concentrations were significantly higher ($P=0.044$) in acute pancreatitis patients (mean $\pm$ SD: 1,895 $\pm$ 980 pg/mL) than healthy subjects (mean $\pm$ SD: 1,246 $\pm$ 380 pg/mL) on the second day of the disease, while EC serum levels were significantly higher in acute pancreatitis patients on the first (mean $\pm$ SD: 57.5 $\pm$ 20.4 ng/mL; $P=0.015$) and the second day (57.7 $\pm$ 25.2 ng/mL; $P=0.015$) of the disease than in healthy subjects (mean $\pm$ SD: 40.5 $\pm$ 11.6 ng/mL). HGF and EC serum concentrations were not significantly different between patients with severe disease and those with mild disease ($P>0.089$). **Conclusions** HGF and EC reflect an inflammatory response in acute pancreatitis patients; however, serum levels of these two molecules are not related to the severity of acute pancreatitis.