

INTERCELLULAR ADHESION MOLECULE-1 CONCENTRATION IN CHILDREN WITH CHRONIC HEPATITIS B

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Soluble intercellular adhesion molecule-1 (sICAM-1) is probably released from a variety of cells, including leukocytes and endothelial cells at sites of inflammation or in the circulation, and serum levels may therefore be used to give an indication of immune-activation and inflammatory process. The aim of this study was to evaluate the serum sICAM-1 concentrations and to identify its relationship between both the grade of histological activity and biochemical parameters in children with chronic hepatitis B. Serum sICAM-1 concentrations were determined by an enzyme-linked immunosorbent assay kit in 37 patients with chronic hepatitis B, and compared with concentrations in 16 patients with liver cirrhosis and in 32 healthy controls. The mean \pm SD sICAM-1 concentrations in patients with chronic hepatitis B, patients with liver cirrhosis, and healthy controls were 81.0 ± 25.0 ng/ml, 103.6 ± 631.0 ng/ml, and 74.5 ± 20.8 ng/ml, respectively. Serum sICAM-1 concentrations were significantly higher in patients with liver cirrhosis than in patients with chronic hepatitis B ($p = 0.05$) and in normal subjects ($p = 0.008$). There was significant correlation between serum sICAM-1 concentrations and histological grade ($r = 0.52$, $p = 0.001$). Among biochemical parameters, sICAM-1 showed correlation with alanine aminotransferase ($r = 0.33$, $p = 0.014$), aspartate aminotransferase ($r = 0.49$, $p = 0.000$) and gamma-glutamyltranspeptidase ($r = 0.39$, $p = 0.007$) in chronic hepatitis B. Serum sICAM-1 is elevated in children with chronic hepatitis B and liver cirrhosis, is a marker of histological severity and its concentration seems to represent hepatocellular damage.

