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SERUM NEOPTERIN CONCENTRATION IN CHILDREN WITH CHRONIC HEPATITIS B

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Neopterin is produced by macrophages after stimulation with interferon gamma or lipopolysaccharide. Elevation of neopterin levels has been reported in adult patients with various liver disease. The aim of this study was to evaluate the serum neopterin levels and its correlation with histological changes in the liver and liver functions in children with chronic hepatitis B. The study population comprised 34 patients with chronic hepatitis B and 12 patients with liver cirrhosis. Serum neopterin was measured by using an enzme-linked immunosorbent assay. The mean ± SD neopterin level was 13.7 ± 5.9 nmol/l in patients with chronic hepatitis B, 20.5 ± 8.6 nmol/l in patients with liver cirrhosis. Serum neopterin levels were significantly higher in patients with liver cirrhosis than in patients with chronic hepatitis B ($p = 0.004$). There was significant correlation between serum neopterin levels and histological grade ($r = 0.49$, $p = 0.003$). However, there was no correlation with serum neopterin levels and biochemical parameters in chronic hepatitis B. Serum neopterin is a marker of histological severity and its concentration seems to represent hepatocelluler damage.