The changes in balance of cytokine profile may result in either recovery or persistence of hepatitis B virus (HBV) and hepatitis C virus (HCV) infections. This study aims to reveal a possible correlation between cytokine levels, i.e., tumor necrosis factor (TNF-α); interferon-gamma (IFN-γ); interleukin (IL)-10, IL-18, and transforming growth factor-beta (TGF-β); and Ishak score or fibrosis in patients with chronic hepatitis B (CHB) or chronic hepatitis C (CHC). Fifty patients with CHB (n=25), CHC (n=25), and the control group of subjects with negative hepatitis B and C serology (n=30) were included in the study. Patients who did not agree to participate in the study were excluded. Serum cytokine levels were measured by ELISA. Liver biopsies from the patients were also taken for pathological analyses by the same pathologist. The serum levels of TNF-α, IL-10, and IL-18 in the hepatitis C group were significantly high compared with those of the control group (P=0.017, P=0.001, and P=0.004 respectively), but, only IL-10 levels in the hepatitis B group were significantly high (P=0.001). These groups did not show any significant difference with respect to IFN-γ or TGF-β levels. In patients with CHB or CHC, there was a significant correlation (P=0.000) between TNF-α and Ishak score or fibrosis; but no such correlation was found with IFN-γ, IL-10, IL-18, or TGF-β. Result of the current study indicated that cytokine activities were important indicators of clinical severity and progression of HBV- and HCV infections. Further investigations on possible effects of cytokines on hepatocellular damage and fibrosis should be done to arrange new immunopathological approaches to viral hepatitis.