

**Abstract:**

Antibody responses of patients with acute (n = 73), fulminant (n = 30) and chronic (n = 51) hepatitis B virus (HBV) infection as well as recovered individuals (n = 7) were studied against three synthetic peptides, Pre-S1 amino acids (aa. 12-32), Pre-S2 amino acids (aa. 120-145), and S amino acids (aa. 124-147) of the envelope region (HBsAg). T cell blastogenic response was investigated in a proportion of the patients (27 acute, nine fulminant, 13 chronic hepatitis and seven recovered individuals) along with seven HBV vaccinated and three normal individuals. The presence of T cell response against S peptide was observed in all the cases (9/9, 100%) during early acute hepatitis. This was suppressed during late stages (8/18, 44%) followed by partial reversal during recovery (5/7, 71%). T cell response and antibodies to Pre-S1 and Pre-S2 peptides were present only in one-third of the patients throughout these periods. The T cell blastogenic response as well as antibody reactivity against these peptides were absent and minimal in chronic hepatitis. Immune response against envelope protein appears to play a major role in acute hepatic injury due to HBV infection and help in virus clearance.