

## Relation between HBsAg/IgM circulating immune complex and hepatic injury

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### Abstract

**AIM:** To observe the relation between HBsAg/IgM circulating immune complex (CIC) and hepatic injury.

**METHODS:** Serum HBsAg/IgM CIC were measured by capture-ELISA, Alanine aminotransferase (ALT) were detected in 31 symptomless subjects with HBsAg-positive, 60 patients with acute Hepatitis B, 78 with chronic active Hepatitis B, 18 with severe Hepatitis B, 49 with hepatic cirrhosis caused by Hepatitis B respectively.

**RESULTS:** The results showed that the positive rates of HBsAg/IgM CIC in various Hepatitis B were arranged from high to low in order

of hepatic cirrhosis > severe Hepatitis > chronic Hepatitis > acute Hepatitis > symptomless HBsAg positive subjects. Among 236 cases with various Hepatitis B, 132 cases had abnormal level ALT and the HBsAg/IgM CIC positive rate was 50.0% (66/132), and 104 cases with normal ALT, the HBsAg/IgM CIC positive rate was 32.7% (24/104). There was significant difference between the two groups ( $P < 0.01$ ). Based on clinical type, the positive rates of HBsAg/IgM CIC were 3.2% (1/31) in 31 symptomless HBsAg-positive persons; 33.3% (4/12) in patients with acute hepatitis and normal ALT, 37.5% (18/48) in patients with acute hepatitis and abnormal ALT ( $P > 0.05$ ); 43.8% (14/32) in patients with chronic-hepatitis and normal ALT, 50.0% (23/46) in chronic-hepatitis and abnormal ALT ( $P > 0.05$ ), 16.7% (1/6) in patients with severe-hepatitis and normal ALT, 75.0% (9/12) in patients with severe hepatitis with abnormal ALT ( $P < 0.05$ ); 60.9% (14/23) in patients with hepatic cirrhosis and normal ALT, 61.5% (16/26) in patients with hepatic cirrhosis and abnormal ALT ( $P > 0.05$ ) respectively.

**CONCLUSION:** The positive rates of HBsAg/IgM CIC are closely related to hepatic injury.

**Key words:** Hepatitis B; IgM; Antigen-antibody complex; Hepatitis B; Hepatitis B surface antigens

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