Anti-pre-S antibodies in different groups of patients with hepatitis B virus infection

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Anti-pre-S antibodies in different groups of patients with hepatitis B virus infection
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Abstract

The anti-pre-S antibody in the samples of sera from normal healthy persons and patients with different clinical types of liver diseases due to hepatitis B virus (HBV) infection was detected by a newly established enzyme-linked immunosorbent assay technique. This test is a blocking assay where anti-pre-S antibody in the patient's serum blocks subsequent addition of horse radish peroxidase-labelled polymerized human serum albumin (pHSA) to the pHSA-receptor site of HBsAg molecules fixed on a solid surface. Anti-pre-S activity was not detected in any from 95 healthy persons who were negative for all HBV-markers or from 105 healthy HBV carriers. In 12 sera from HBV vaccine recipients, anti-pre-S activity was noted in higher proportions compared with anti-HBs, after both the second and third doses of vaccine. Anti-pre-S activity was detected in small proportions of HBsAg positive sera from acute viral hepatitis (4.2%) and chronic active hepatitis (10%). In subacute viral hepatitis patients, the anti-pre-S antibody was totally absent. However, anti-pre-S activity was recorded in high proportions of HBsAg-positive sera from patients with cirrhosis of liver (57.2%) and fulminant hepatitis (41.6%). The anti-pre-S antibodies were assumed to be implicated in the clearance of HBV particles from circulation without causing tissue damage.

Reference

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