Prevalence of occult hepatitis B virus infection in hemodialysis patients from Egypt with or without hepatitis C virus infection.


Abstract:

BACKGROUND: While prevalence of Hepatitis B virus (HBV) in patients with end-stage renal failure (ESRF) who are undergoing dialysis has decreased significantly during the past few decades, it still remains a distinct clinical problem. The immunosuppressive nature of renal disease often leads to chronicity of the HBV infection and an opportunity for nosocomial spread of the infection among dialysis patients. Egypt is among the countries with intermediate endemicity of HBsAg (range, 2%-7%). Large-scale geographic heterogeneity in HBV prevalence has been reported worldwide and HBV prevalence is especially heterogeneous in Egypt. OBJECTIVES: To assess the prevalence of occult HBV infection (OBI) in hemodialysis patients with or without chronic hepatitis C (HCV) from Minia and Assuit, Upper Egypt, using HBV DNA assays. PATIENT AND METHODS: Sera from 145 hemodialysis patients with negative HbsAg were investigated for HBV DNA using real-time polymerase chain reaction (RT-PCR). Only serum samples with repeatedly detectable HBV DNA were considered positive. Patients were divided into 2 groups: HCV RNA positive and HCV RNA negative, based on the results of a third generation enzyme linked immunosorbent assay (ELISA) anti-HCV test and HCV RNA PCR. RESULTS: HBV DNA was detected in 6 of the 145 patients (4.1%) and HbcAb was detected in 29/145 patients (20%). There were no statistically significant differences in the age, duration of hemodialysis, biochemical parameters, serological markers of HBV, or HBV DNA between patients with and without HCV infection. CONCLUSIONS: Four percent of the hemodialysis patients had OBI. There was no significant difference in the prevalence of OBI between hemodialysis patients with or without HCV co-infection.

Keywords:

Egypt; Hemodialysis; Hepatitis B; Hepatitis C; Prevalence

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