

#1925 - Occult hepatitis B virus infection among hemodialysis patients

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Body

Abstract

Background: Hepatitis B virus is a major public health problem all over the world. Recently a new form of hepatitis B infection named Occult hepatitis B Infection (OBI) has appeared globally. The OBI is defined as the presence of HBV DNA in the liver and/or blood in the absence of detectable serum HBsAg with / without anti-HBc or anti-HBs. The prevalence of OBI has been reported in hemodialysis (HD) patients in different regions of the world. Thus, this study investigated the prevalence of OBI among hemodialysis (HD) patients.

Materials and methods: The cross-sectional study was carried out on 84 HD patients. These sera were checked for HBsAg, HBc-IgG assessment using Enzyme linked immunosorbent assay (ELISA). The DNA was extracted from the sera samples and tested for HBV DNA detection using Nested Polymerase Chain Reaction (Nested PCR). The liver

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function tests including serum alanine aminotransferase (ALT) and aspartate aminotransferase levels (AST) were carried out for all the HD individuals.

Results: 52/84(61.9%) of HD were males and 32/84 (38.1%) were females. The patient's age ranged from 25 to 64 with a mean age of 52.4 ± 15.2 years. HBsAg and HBe-IgG were detected in 1(1.1%) female. 2 (2.4%; a female and a male) patients were positive for HBsAg. 14/84 (16.7%; 6 female and 8 male) HD patients were positive for anti-HBe but negative for HBsAg, among them 4(28.6%; 2 female and 2 male) cases were positive for HBV DNA, indicating the presence of OBI in HD patients. *Even distribution of OBI among the HD was found in 2(2.36%) male and 2(2.36%) female ($p > .0.05$).*

Conclusion: In the present study the moderate rate of 4.76% OBI has been observed in HD patients. *The prevalence of seropositive OBI among the gender was 2(2.36%) male and 2(2.36%) female.* The seronegative OBI have not been detected in the present study but requires further investigation. In this study the affliction of OBI in HD patients is not clear.

Key words: Occult hepatitis B virus (OBI), Hemodialysis (HD), Enzyme linked immunosorbent assay (ELISA), Nested Polymerase Chain Reaction (Nested PCR)

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