



Hepatitis B Virus and Hepatitis C Virus Seroprevalence in Hemodialysis Patients in Eskişehir Yunus Emre State Hospital

Eskişehir Yunus Emre Devlet Hastanesi Hemodiyaliz Hastalarında Hepatit B Virüsü, Hepatit C Virüsü Seroprevalansı

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Dear Editor,

In chronic renal failure (CRF), infections are important causes of morbidity and mortality. Impaired immune system, frequent blood transfusion because of anemia, vascular intervention for hemodialysis, and exposure to infected patient or equipment are the factors that increase the risk of viral hepatitis infection in hemodialysis (HD) patients (1,2). In a study evaluating viral hepatitis epidemiology in kidney disease (including patients who were on regular hemodialysis, and peritoneum dialysis and renal transplant recipients) performed in in 2010, it has been reported that the prevalence of HBsAg positivity was 3.9% and anti-HCV positivity rate was 8.5% (3,4). In this study, we aimed to determine the seroprevalence of HBsAg and hepatitis C virus (HCV) as well as antibody response against hepatitis B vaccination in HD patients due to CRF in our hospital.

HBsAg, anti-HBs and anti-HCV parameters of 64 patients, who underwent HD in 2013, were retrospectively evaluated from patient files. Serum samples were analyzed by a chemiluminescent immunoassay (ELISA, Liaison, Diasorin, Italy). Statistical analyses were performed by SPSS version 19 (Statistical Package for Social Sciences) package program. Twenty-nine (45.3%) patients were male, 35 (54.7%) were female. The mean age was 59.89±13.85 years. Duration of HD ranged between 12 and 252 months with a mean duration of 83.47±73.25 months. None of the patients was positive for HBsAg. Anti-HBs was positive in 56 (87.5%) patients and in 24 were positive for anti-HBs despite the absence of history

of vaccination against hepatitis B. Fifteen patients (23.4%) were positive for anti-HCV. The anti-HCV positivity was confirmed by repeat testing in all anti-HCV positive patients. Anti-HBs titer was lower than 10 mIU/mL in 4 (11.1%) of 36 patients who have completed hepatitis B vaccination schedule. Four patients had not hepatitis vaccination despite being recommended by their physicians.

In a study from Turkey, the prevalence of HBsAg positivity in HD patients was 5.5 % and anti-HCV positivity was 16% (5). In this study, HBsAg positivity was not detected in our HD patients and anti-HCV positivity rate was found to be 23.4%. High anti-HCV positivity rates in our HD patients were attributed to the limited number of patients, the majority (86%) of patients' being at the age of 50 years and over, longer duration of dialysis, and the patients' history of undergoing dialysis in more than one center.

Impaired immune response against hepatitis B vaccine is a problem in patients with end-stage renal failure including dialysis patients. In a study from Turkey, the rate of anti-HBs negativity following 3 doses of vaccination against hepatitis B has been reported to be 10.4% (6). Our rate of anti-HBs negativity after vaccination against hepatitis B was 11.1%. We assume that this study will contribute to the epidemiological data on seroprevalence of HBV and HCV among HD patients in the Eskişehir Province.

Anahtar kelimeler: Hemodiyaliz, hepatit B, hepatit C

Key words: Hemodialysis, hepatitis B, hepatitis C

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