

만성신부전 환자에서 B형 간염 백신 투여시 항체 생성률

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Response Rate of HBV Vaccination in Various Stages of Chronic Kidney Disease

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Background: Although hepatitis B virus (HBV) vaccination is recommended for all dialysis patients, the response rate of HBV vaccination in dialysis patients is very low. Therefore, we tried to investigate the necessity of early HBV vaccination in pre-dialysis patients analyzing the response rate of vaccination in various stages of chronic kidney disease (CKD).

Methods: A total of 87 patients in 3 different stages of CKD was enrolled in this study. Patients in stage 3 (n=30) and 4 (n=28) were received the HBV vaccine as standardized schedule, consisting of 1 mL of the recombinant vaccine, Hepavax-gene TF at 0, 1, and 6 months. And then, the patients with stage 5 (n=29) were received the same vaccine for doubling doses at 0, 1, 2, 6 months. Three months after each of the last vaccination, serum level of Anti-HBs was measured in all patients.

Results: There was no significant difference in baseline characteristics including age, sex, presence of DM among the 3 groups. The overall seroconversion rate after vaccination was 79.4 %. The seroconversion rate was significantly higher in patients with stage 3 than other patients (stage 3: 94%, stage 4: 79%, stage 5: 66%, p=0.031). Analyzing based on dialysis, seroconversion rate was also significantly higher in pre-dialysis patients than that in dialysis patients (pre-dialysis group: 86%, dialysis group: 63%, p=0.02). There was no significant factor to contribute seroconversion in multivariate analysis.

Conclusions: Our study showed the high seroconversion rate after HBV vaccination in CKD patients with stage 3 and pre-dialysis. Therefore, the HBV vaccination should be considered in early CKD stages.

Key Words: 혈액투석, B형간염, 항체
Hemodialysis, Hepatitis B virus, Antibody