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B형 간염 환자의 Rituximab을 사용한 신장이식에서 항바이러스제의 사용

서울아산병원 일반외과[1], 신장내과[2]

김영훈[1], 정주희[1], 한덕종[1], 박수길[2]

Antiviral Prophylaxis for HBsAg-positive Renal Transplant Recipients with Rituximab® Treatment

Young Hoon Kim[1], Joo Hee Jung[1], Duck Jong Han[1], Su Kil Park[2]

Department of Surgery[1], Department of Nephrology[2] Asan Medical Center

The risk of Hepatitis B virus (HBV) reactivation under immunosuppressant has been well known. Especially, Rituximab® is identified as strong risk factors of HBV reactivation in recent studies. Hepatitis B virus reactivation increase patient mortality and graft failure in renal transplant recipient. The purpose of this study is to identify the effect of antiviral agent and HBV reactivation in renal transplant recipient with rituximab usage.

Total 165 patients underwent renal transplantation with desensitization protocols including rituximab® because of ABO incompatibility or flowcytometry crossmatching (FCXM) positivivity in our center from Jan 2009 to May 2012. Ten out of 165 recipients were HBsAg positive at the time of transplant. They were followed up at least 6 months. At the time of transplant, serum HBV-DNA titers were less than $2.0x10^4$/ml for all patients, in 9 patients HBV envelope antigen (HBeAg) was negative. Entecarvir was used in 9 patients; adefovir plus lamivudine were used in one patient. During the follow up periods of median 432 days (190-915), there was no mortality or graft failure. For 9 patients serum HBV-DNA titers were undetectable during the follow up periods. Mild ALT elevation was detected in 3 patients, without HBV reactivation. One patient experienced HBV reactivation 6 month after entecarvir discontinuation due to economic reason. The one case of HBV reactivation was detected 6 months after antiviral discontinuation with mild serum transaminase elevation (50 IU/ml) and after re-use of entecarvir DNA level dropped. Resistant mutation did not emerge in all patients.

For HBsAg positive renal transplant recipients, rituximab® can be used safely with antiviral prophylaxis. But this is short term result and careful monitoring of liver function and HBV-DNA levels is mandatory for a long term outcome.

Key Words: B형간염, 신장이식, 맙테라
HBV reactivation, Renal transplant, Rituximab