

간이식 후 만성 신부전

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Chronic Renal Failure after Liver Transplantation

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Background : Chronic renal failure after liver transplantation is a common complication. In spite of the abundance of this feature, long- term, large- scale studies regarding this subject in Korea have not been investigated thoroughly. Here, we assessed the clinical course, frequency and risk factors for the development of chronic renal failure in patients who received liver transplantation in Seoul National University Hospital during the last decade.

Methods : Three hundred thirteen patients who received liver transplantation from January 1997 to December 2006 were recruited. Chronic renal failure was defined as a sustained decrease in estimated glomerular filtration rate of $<60 \text{ mL/min/m}^2$ for at least 3 months. Patients who had combined kidney disease such as glomerular nephritis, polycystic kidney disease or received liver- kidney cotransplantation were excluded.

Result s : The causes of liver disease were HBV associated liver cirrhosis without malignancy 46%, HBV associated hepatocellular carcinoma 34%, HCV associated liver disease 3%, alcoholic liver disease 4% etc. Mean follow- up duration was 44.5 ± 26.6 months. Male to female ratio was 72.2:27.8%. Kidney function was gradually declined until 6 months after transplantation but, was maintained afterwards. The cumulative incidence of chronic renal failure was 23.1% at 1st year, 29.1% at 3rd year and 34.6% at 5th year. MELD score(= $(0.957 \times \ln(\text{serum Cr})) + 0.378 \times \ln(\text{serum bilirubin}) + 1.120 \times \ln(\text{PT INR}) + 0.643 \times 10$), HCV infection, age older than 50, and use of immunosuppressive regimens containing cyclosporine were independent risk factors for chronic renal failure by the multivariate cox regression analysis. In patients who had not previously used mycophenolate mofetil (MMF), renal function was significantly improved by the substitution of calcineurin inhibitor(CNI) into MMF.

Conclusion : To preserve kidney function after liver transplantation, the management in the early period is very important. Severity of liver disease, HCV infection, age and cyclosporine are risk factors of chronic renal failure in recipients.

Key Words : 간이식, 만성 신부전, 신손상

Liver transplantation, Renal dysfunction, Renal failure