

단일 아시아 센터 코호트에서의 신이식 후 사구체 신염 발생의 위험인자 분석

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Risk Factor Analysis for Posttransplant Glomerulonephritis in a Cohort of a Single Asian Center

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Background: Glomerulonephritis (GN) is a main cause of chronic kidney disease led to the renal transplantation. Also, posttransplantation glomerulonephritis (PTGN) combining the recurrent GN and de novo GN is one of the most common causes of kidney allograft failure. The purpose of this study is to identify the incidence and risk factors of PTGN.

Methods: In this cohort study, among 910 patients who underwent renal transplantation at Seoul National University from 1995 to 2009, a total of 681 patients were enrolled, excluding patients under age 18 or received second transplantation or multi-organ transplantation. The medical records including donor type, HLA type, original renal disease, graft survival, recurrence of GN and type of immunosuppressants were reviewed.

Results: A total of 219 patients (32.2%) had been biopsy-proven or clinically diagnosed as chronic GN and 293 patients (43.0%) were classed as chronic kidney disease (CKD) of unknown etiology. The remaining 169 patients (24.8%) underwent kidney transplantation due to renal failure caused by other etiology such as diabetes mellitus and hypertension. PTGN was diagnosed in 14.7% of chronic GN, compared to 10.5% in CKD of unknown etiology group, and 3.6% in other etiology group. In patients with PTGN, renal allograft survival rate was significantly decreased ($p=0.018$). In univariate analysis for probability of PTGN using Log-Rank test, preemptive transplantation, the use of tacrolimus, mycophenolate, and simulect were significant risk factors. However, donor type, timing difference of referral and HLA antigen mismatch were not associated. In addition, through multivariate analysis after adjusting for other risk factors including age, gender, HLA antigen mismatch, donor type, calcineurin inhibitors administered, preemptive transplantation, and timing difference of referral, the use of tacrolimus (OR 2.17, 95% CI 1.28–3.67, $p=0.004$), and simulect (OR 2.04, 95% CI 1.15–3.61, $p=0.015$) increased the development of PTGN significantly.

Conclusion: PTGN decreased renal allograft survival rate and was a significant problem especially in chronic GN or unknown etiology patients. Using tacrolimus or simulect might be a risk factor for the occurrence of PTGN.

Key Words: 신장이식, 사구체신염, 위험인자

Kidney transplantation, Glomerulonephritis, Risk factors