

Rituximab과 IVIG치료 후 C4d염색 음전을 보인 만성항체매개성 거부반응 1예

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A Case of Disappearance of C4d Deposition after IVIG with Rituximab Treatment of Chronic Active Antibody Mediated Rejection in Follow-up Biopsy

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Although the treatment of acute cellular rejection after renal transplantation is relatively well-established, the optimal treatment of antibody-mediated rejection is not known well. Widespread C4d deposit in peritubular capillaries in renal allograft biopsies by immunofluorescent study played a role in diagnosis of antibody mediated rejection. We report a case of chronic active antibody-mediated rejection treated with courses of steroid pulse therapy, IV immunoglobulin and rituximab; subsequent renal allograft biopsy revealed the disappearance of C4d deposits.

A 41-year-old male patient was admitted in May 2009 with decreased renal function. He had a history of end-stage renal disease of unknown etiology, and received the first living related renal transplantation from his sister in 1996. He was on the immunosuppressive therapy with tacrolimus, steroids, and mycophenolate mofetil (MMF). At the time of renal transplantation, HLA typing showed a mismatch in HLA-B, and HLA-DR loci, and both donor-specific T- and B-cell crossmatches and class I/II panel reactive antibody (PRA) tests were negative. Upon admission, renal allograft biopsy was performed which revealed mild accumulation of inflammatory cells in tubules and intima. Immunofluorescent study (IF) showed focal C4d deposits distributed throughout peritubular capillaries. The panel reactive antibody test still remained negative at the time of biopsy. Therefore, we concluded this case as chronic active antibody-mediated rejection with underlying chronic allograft nephropathy. He was treated with courses of steroid pulse therapy, IV immunoglobulin, and rituximab 375 mg/m². Despite intensive therapy, the serum creatinin level continued to rise up to 2.7mg/dl and we decided to redo the allograft biopsy, which showed the disappearance of C4d deposits. This suggests that the antibody-mediated rejection was treated, but the underlying chronic allograft nephropathy was progressed.

Key Words : 만성항체매개성 거부반응, C4d염색, Rituximab

Antibody-mediated rejection, C4d deposit, Rituximab