S-C27

T세포 유세포 분석 교차반응 검사 양성/T 세포 독성검사 음성 환자의 신장이식 성적에 관한 단일기관 연구

서울대학교 의과대학 내과학교실[1], 서울대학교 의과대학 진단검사의학과교실[2], 서울대학교 의과대학 외과학교실[3]

이정표[1] · 차란희[1] · 김선문[1] · 김용철[1] · 안규리[1] · 박명희[2] · 김상준[3] · 김연수[1]

Kidney Transplantation in Recipient with T-cell Flow Cytometry Crossmatch(+)/T-cell Cytotoxicity(-)

Jung Pyo Lee[1], Ran-hui Cha[1], Sun Moon Kim[1], Yong Chul Kim[1]
Curi Ahn[1], Myoung Hee Park[2], Sang Jun Kim[3], Yon Su Kim[1]

Department of Internal Medicine[1] Seoul National University College of Medicine
Department of Laboratory Medicine[2] Seoul National University College of Medicine
Department of Surgery[3] Seoul National University College of Medicine

HLA crossmatch is essential for preventing hyperacute rejection and deciding appropriate donors and recipients in kidney transplantation. T-cell complement dependent cytotoxicity crossmatch (T-CDC) has been used generally, but recently, T-cell flow cytometry crossmatch (T-FCXM) test is used frequently because of its convenience. The sensitivity of T-FCXM is superior in detecting anti-HLA antibodies. Therefore, T-FCXM (+), even when T-CDC is negative, may be a risk factor for antibody mediated rejection(AMR) which may result to early graft loss. The initial T-FCXM was evaluated before transplantation and a final re-evaluation was done at the time of transplantation. Twenty-eight (5.1%) of 553 recipients exhibited historical T-FCXM (+) and T-CDC (-) concomitantly at Seoul National University Hospital between 1998 and 2008. Fifty-six T-FCXM (-) and T-CDC (-) recipients were selected as control, who were 1:2 matched for age, sex, living or cadaver donor, and date of transplantation. AMR was not observed in either group. There were no significant difference in graft survival between the two groups. In addition, the incidence of acute cellular rejection showed no difference. The historical FCXM (+), T-CDC (-) group had 9 events of acute rejection in total. Six events occurred within 1 month post-transplantation and the remaining events occurred after 1 year. When we further divided the historical T-FCXM (+) group into groups with negative-conversion [final (-)] and non-conversion [final (+)] at the time of transplantation, final (+) group had significantly more episodes of acute rejection (8 events), even though there was no differences in the graft survival. Five of the FCXM (+) recipients (4 living and 1 cadaver transplants) received induction therapy. One patient received only plasmapheresis. Two patients were treated with Baciliximab, plasmapheresis, and IVIG and another two patients received Rituximab in addition. One of these cases had negative conversion and others except the cadaver transplant case showed a weaker reaction after intervention. Intraoperative graft biopsy was done in 3 of the 5 and hyperacute rejection was not found. During the follow-up of a median of 8 months (5-29), there were no significant rejection episodes. Conclusively, T-FCXM is useful, but is sensitive in detecting sensitized pretransplant recipients and confirminga negative conversion before transplantation may be useful for reducing acute rejection episodes in T-FCXM positive patients.

Key Words : T세포 유세포 분석 교차반응 검사 양성, 신장이식
T-cell flow cytometry crossmatch (+), Kidney Transplantation