고위험군 환자에서 유도 요법으로 rituximab을 사용하여 이루어진 성공적인 신장 이식 1례

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Successful 3rd Renal Transplantation using Induction Therapy with Rituximab in a Highly Sensitized Patient

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Rituximab, chimeric murine/human anti-CD20 monoclonal antibody, was originally developed to treat non-Hodgkin's lymphoma but its use was extended to prevent antibody-mediated rejection (AMR). We hereby report an experience of rituximab as induction therapy in a highly sensitized patient. The patient was a 44-year-old male patient who experienced graft loss two times due to severe acute rejection. Panel reactive antibody (PRA) measured 6 months before the transplantation was 96.4% and 58.3% respectively, and flowcytometric cross matching test was weakly positive for T lymphocyte. To prevent AMR, we designed desensitization protocol using rituximab, plsmapheresis and intravenous immunoglobulin. Rituximab (375 mg/mm^2) was administered one week and just before transplantation. The creatinine of the patient was normalized within 48 hours after the transplantation and PRA of class I and II were dropped to 10.7% and 0% respectively. The protocol biopsy performed at 14th posttransplant day was negative for C4d, and there was no evidence of acute rejection. The renal function was stable without rejection during three months after transplantation. In conclusion, induction therapy with rituximab is effective strategy for preventing AMR in a high-risk patient.