

## 항ABO 항체 매개 급성 신거부 반응에서 Bortezomib 사용의 일례

메리놀 병원 신장내과<sup>1</sup>, 외과<sup>2</sup>, 임상병리학과<sup>3</sup>

이동렬<sup>1</sup> · 안정명<sup>1</sup> · 정준현<sup>2</sup> · 김병창<sup>3</sup> · 공진민<sup>1</sup>

### Bortezomib for Treatment-resistant Case of Anti-ABO Antibody Mediated Acute Rejection (ABO-AMR)

Dong Ryeol Lee<sup>1</sup>, Jeongmyung Ahn<sup>1</sup>, Joon Heun Jeong<sup>2</sup>, Byung Chang Kim<sup>3</sup>, Jin Min Kong<sup>1</sup>

Maryknoll Medical Center Division of Nephrology Internal Medicine<sup>1</sup>  
Department of General Surgery<sup>2</sup>, Department of Clinical Laboratory<sup>3</sup>

**Introduction :** Although recent literatures showed excellent graft outcome of ABO incompatible living donor kidney transplantation, some grafts do fail due to ABO-AMR. Bortezomib, a proteasomal inhibitor approved for use in multiple myeloma, may have a role in the treatment of AMR of organ transplant patients. Several reports suggested the efficacy of this drug on anti-HLA AMR, but no report so far for ABO-AMR.

**Method and Result :** A 49 y-o blood group O lady received a kidney from her blood group A husband. The cause of ESRD was type 1 DM. PRA was 5%. Rituximab and pretransplant plasmapheresis reduced ABO antibody titer from the initial value of 256 to 4 on transplant day. Graft vein was injured during laparoscopic donor nephrectomy with subsequent development of delayed graft function. Anuria in the 1st week and urine output gradually increased to more than 500 mL by day 15, but urine decreased again in the next few days. Graft biopsy on day 7 showed no peritubular capillaritis, but biopsy on day 22 revealed AMR. A total of 23 plasmapheresis was done along with IVIG since the diagnosis of AMR until day 58. Urine output and ABO antibody (4 to 16) waxed and waned. ATG was given for 3 days but discontinued due to thrombocytopenia. As AMR did not respond to treatment, we gave 3 doses of bortezomib started on day 41. The patient had been dialysis dependent until day 80, when urine amount began to abruptly increase. Serum creatinine at last follow up (day 101) was 1.1mg/dl. Although it is difficult to dissect the precise role of bortezomib in the complicated treatment of this case, we believe that it played a significant role for the reversal of ABO-AMR.

**Conclusion :** Bortezomib seems beneficial for treatment of ABO-AMR.

**Key Words :** 혈액형불일치 신이식, 거부반응  
ABOi-KT, Bortezomib