

## 신이식 후 급성 거부반응과 소변 엔도칸 사이의 관계

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### Association Urine Endocan with Acute Rejection after Kidney Transplantation

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Rejection is occurred between endothelial cells of donor and leukocytes of recipient. Endocan is expressed by the vascular endothelium, and may represent a novel endothelial cell dysfunction marker. In order to ensure that the relationship between rejection and endocan level, we measured plasma and urine endocan through ELISA. The value of endocan was measured in 76 patients who underwent kidney transplantation (KTP). The median of duration after KTP was 368 days (IQR 4073days). The rejection group included 23 patients with biopsy-proven acute rejection. The other group (non-acute rejection, non-AR) contained patients with long term good outcome of allograft, biopsy-proven acute tubular necrosis and calcineurin inhibitor toxicity. In rejection group, urine endocan level was significantly higher than the non-AR group ( $p=0.035$ ). But plasma endocan level was not significantly different from the non-AR group ( $p=0.178$ ). In logistic regression model, urine endocan had the odd ratio of 2.932 (95% confidence interval, CI 0.90-9.61,  $p=0.076$ ) about acute rejection. In diabetic patients of AR group, urine endocan showed the odd ratio of 4.168 (95% CI 1.09-15.93). Urine endocan showed inversely correlation with estimated glomerular filtration rate (eGFR). In AR group, the correlation coefficient was -0.822 ( $p=0.001$ ). In non-AR group, the correlation coefficient was -0.484 ( $p=0.012$ ). In conclusion, compared with the non-AR group, urine endocan was elevated in AR group. When considering inversely correlation urine endocan with eGFR, elevated level of urine endocan are more likely result of destruction of kidney than filtration of circulating plasma endocan.

**Key Words:** 신이식, 거부반응, 엔도칸

Kidney transplantation, Acute rejection, Endocan