

## 말기 신 질환자에서 관찰되는 T 림프구 구성의 특성

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정병하, 홍유아, 김현경, 최선령, 선인오, 박훈석, 최범순, 박철휘, 김용수, 양철우

### Characteristics of T Cell Mediated Immunity in Patients with End-Stage Renal Disease

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**Background:** Patients with end-stage renal disease (ESRD) shows altered immunity. However, the precise immunologic profile has not been fully investigated. In this study, we evaluated T cell associated immune profile of ESRD patients in comparison with health population.

**Methods:** Thirty-eight ESRD Patients (maintenance HD group (n=22) and pre-dialysis (n=16)) and 24 healthy volunteers were included. We compared the laboratory findings and T cell associated immune profiles among those patients.

**Results:** Among effector T cell subset, the proportion of Th17 and Th2 significantly increased in ESRD group, compared with healthy control ( $p < 0.05$ ). However, that of Th1 did not differ significantly among three groups ( $p > 0.05$ ). Within ESRD group, all of three effector T cell subset did not differ significantly between HD group and pre-dialysis groups. In chemokine receptor analysis, CD4+CCR4-CCR6+T cell was significantly increased in ESRD group in the same manner with Th17. Naïve T cell (Tnaive) was significantly decreased in ESRD group and it was more significant in the pre-dialysis group ( $P < 0.05$ , respectively). In contrast, central memory T cell (Tcm) and effector memory T cell (Tem) was significantly increased in ESRD group. The capacity to produce IL-17 in Tem was significantly higher in ESRD group and it was more significant in pre-dialysis group compared with maintenance HD group ( $p < 0.05$ , respectively). In the analysis of CD8+ T cell, Tem and Temra subset was significantly increased in the ESRD group. ( $P < 0.05$ )

**Conclusion:** The result of this study showed the significantly altered T cell associated immune profile in ESRD patients.

**Key Words:** 말기 신질환, T 림프구, 면역 세포

End stage renal disease, T lymphocyte, Immune cell