F-B4

급성 T 세포 매개 거부 반응을 보이는 이식 신 조직에서 면역 조절 T 세포와 Th17 세포 침윤 비율의 임상적 의미

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

Clinical Significance of the Ratio between Regulatory T Cell and Th17 in Renal Allograft Biopsies with Acute T Cell Mediated Rejection

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Background: The aim of this study is to investigate the clinical significance of the ratio between Th17 and regulatory T cell (Treg) infiltration in renal allograft tissues with acute T cell mediated rejection (ATCMR).
Methods: Fifty-six patients with biopsy-proven ATCMR were included. Infiltration of Treg and Th17 was evaluated with immunostaining for FOXP3 or IL-17 on the biopsy specimens, and the patients were divided into the Treg high group (Log Treg/Th17 >0.45) or the Th17 high group (Log Treg/Th17 <0.45). We compared the allograft function, severity of tissue injury, and clinical outcome between two groups.
Results: In the Th17 high group, allograft function was significantly decreased compared with the Treg high group ($p<0.05$). The severity of interstitial and tubular injury in the Th17 high group was higher than the Treg high group ($p<0.05$). The proportion of steroid resistant rejection, incomplete recovery, and recurrent ATCMR were higher in the Th17 high group than in the Treg high group (all indicators, $p<0.05$). The Th17 high group showed lower 1-year (54% vs. 90%, $p<0.05$) and 5-year allograft survival rates (38% vs. 85%, $p<0.05$) compared with the Treg high group. Multivariate analysis revealed that the Treg/Th17 ratio was a significant predictor for allograft outcome.
Conclusion: The Treg/Th17 ratio is a useful indicator for representing the severity of tissue injury, allograft dysfunction and for predicting the clinical outcome with ATCMR

Key Words: 급성 거부 반응, 면역 조절 T 세포, Th17 세포
Acute T cell mediated rejection, Regulatory T cell, Th17 cell