

혈청 반응 음성, aviremic 환자에서 C 형 간염 바이러스의 특이 T 세포 반응의 상이한 두가지 기능적 패턴

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Two Distinct Functional Patterns of Hepatitis C Virus (HCV)-Specific T Cell Responses in Seronegative, Aviremic Patients

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In hepatitis C Virus (HCV) high-risk groups, HCV-specific T cell responses have been detected in seronegative, aviremic persons who have no evidence of HCV infection. Herein, we investigated functional profiles of HCV-specific T-cell responses in seronegative, aviremic patients of a HCV high-risk group. Seventy seven hemodialysis patients with chronic renal disease were analyzed by IFN- γ ELISpot assays, and eight of 71 (11.3%) seronegative, aviremic patients displayed HCV-specific T-cell responses. Their HCV-specific memory T cells were characterized by assessing cytokine polyfunctionality, known to provide antiviral protection. By intracellular staining of IFN- γ , TNF- α , IL-2 and MIP-1 β , we identified two distinct populations in the seronegative, aviremic patients: polyfunctional responders and TNF- α -predominant responders. In further analysis, occult HCV infection was excluded as a cause of the HCV-specific T cell response via secondary nested RT-PCR of HCV RNA in peripheral blood mononuclear cell samples. HCV-specific T cells targeted multiple epitopes including non-structural proteins in a single patient, demonstrating that their T cells had been primed by HCV proteins synthesized within the host. We conclude that HCV-specific memory T cells of seronegative, aviremic patients arise from authentic HCV replication in the host, but not from current occult HCV infection. By functional pattern of HCV-specific T cells, there are two distinct populations in these patients: polyfunctional responders and TNF- α -predominant responders.

Key Words: 혈액투석, C형 간염, T 세포

Hemodialysis, Hepatitis C virus, T cell