



Comparison of immune restoration in early versus late alpha interferon therapy against hepatitis C virus.

Abdel-Hakeem MS, Bédard N, Badr G, Ostrowski M, Sékaly RP, Bruneau J, Willems B, Heathcote EJ, Shoukry NH.

Abstract:

Early alpha interferon (IFN-alpha) therapy against hepatitis C virus (HCV) rescues polyfunctional, virus-specific memory CD8(+) T cells, but whether immune restoration is possible during late therapy remains controversial. We compared immune restoration of HCV-specific memory T cells in patients who cleared HCV infection spontaneously and following early or late IFN therapy. Multifunctional CD4(+) and CD8(+) memory T cells were detected in spontaneous resolvers and in individuals treated early following an acute infection. In contrast, limited responses were detected in patients treated during chronic infection, and the phenotype of HCV-specific cells was influenced by autologous viral sequences. Our data suggest that irreversible damage to the HCV-specific memory T-cell response is associated with chronic HCV infection.

Published In:

J Virol. , 84(19) , 10429-10435.