Cytokine profile and fibrosis-regulating activity of ronkoleukin in chronic viral hepatitis C

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The aim was to study the informational value of serum cytokines (IL-2, IL-4, IL-10, IFNγ, TGFβ1) and proteins regulating the intercellular matrix (MMP-9, and MMP-9/TIMP-1 and MMP-9/TIMP-2 complexes) taking into consideration the hepatic fibrosis progression score in two groups of chronic viral hepatitis C (CVHC) patients receiving various regimen of antiviral treatment (AVT). Groups were matched for age, sex, duration of the chronic disease and basic components of the AVT (peginterferon alpha-2α and ribavirin). One group (19 patients) received AVT supplemented with recombinant IL-2 (ronkoleukin), the second (22 patients) — AVT without IL-2. Control group consisted of 14 healthy persons. Results showed the association of blood serum levels of pro- and anti-inflammatory cytokines, metalloproteinases and metalloproteinases/TIMP complexes with HCV-dependent fibrosis stage. The correspondence between ronkoleukin pharmacodynamic activity range and the structure of immune dysfunctions in CVHC points to the promising use of the drug in the treatment of CVHC, where it could manifest fibrosis-regulating activity. (Cytokines and Inflammation. 2014. Vol. 13. № 1. P. 71–77.)

Key words: chronic viral hepatitis C, cytokines, immune dysfunction, antiviral treatment, interleukin-2.