Tumor Necrosis Factor α Gene Expression and the Response to Interferon in Chronic Hepatits C

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Abstract of:

Hepatology 1996; 23:210-217

Tumor necrosis factor α (TNF-α) is a cytokine with pleiotropic properties that is induced in a variety of pathological situtions including viral infections. In this work, we analyzed the expression of TNF-α gene in patients with chronic hepatits C. Serum TNF-α levels were found to be elevated in all chronic hepatits C patients including those cases presenting sustained biochemical remission of the disease after interferon therapy. Untreated patients with chronic hepatits C showed increased TNF-α messenger RNA (mRNA) levels in the liver and mononuclear cells as compared with healthy controls. After completion of treatment with interferon, patients experiencing sustained complete response showed values of TNF-α mRNA, both in the liver and in peripheral mononuclear cells, within the normal range, significantly lower than patients who did not respond to interferon and than those with complete response who relapsed after interferon withdrawal. Pretreatment values of TNF-α mRNA were lower in long-term responders to interferon than in cases who failed to respond to the treatment. Values of TNF-α mRNA in the liver or in mononuclear cells were higher in speciments with positive hepatits C virus (HCV) RNA than in those samples where the virus was undetectable. Neither the intensity of the liver damage nor the amount of HCV RNA in serum or in cells showed correlation with the levels of TNF-α transcripts in peripheral mononuclear cells but it was found that high TNF-α values were associated with genotype 1b. In conclusion, there is an enhanced expression of TNF-α in HCV infection. High levels of this cytokine may play a role in the resistance to interferon therapy.

Coagglutination with Antisera to MyfA and PsaA to Distinguish *Yersinia enterocolitica* from *Yersinia pseudotuberculosis* Pathegonic Isolates

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Abstract of:

Contrib Microbiol Immunol. Basel, Karger, 1995; 13:158-164

The mucoid *Yersinia* factor (MyfA) [1] has been identified as a protein with an apparent molecular weight of 21 kD. It is not encoded by the pVY plasmid, and its amino acid sequence presents a 44% homology with the pH 6(PsaA) antigen of *Yersenia pestis* [1,2]. In this study, we report that there is an immunological cross-reactivity between MyfA and PsaA, and describe the utilization of the coagglutination tests using staphylococci coated with monospecific polyclonal anti-MyfA and anti-PsaA to identify the pathogenic *Yersinia enterocolitica* and *Yersinia pseudotuberculosis* strains.