

Original Paper

The relation of polymorphisms in +874 region of IFN- γ with occult HBV infection

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Abstract

Background and Objective: Occult hepatitis B infection is a form of hepatitis in which despite of absence of detectable HBsAg, HBV-DNA is present in peripheral blood of patients. The mechanisms which are responsible for progression of OBI yet to be clarified but some investigators believed that the genetics and immunological parameters may be different in resistant individuals and patients. Cytokine network system could be leading alteration in viral immune response. The aim of this study was to investigate the relation between polymorphisms +874 region of IFN- γ with occult hepatitis B infection.

Materials and Methods: In this study, the plasma samples of 3700 blood donors were tested for HBsAg and anti-HBs by ELISA. The HBsAg negative and anti-HBc positive samples were selected and screened for HBV-DNA by PCR. HBV-DNA positive samples assigned as occult hepatitis B infection cases and ARMS-PCR technique were performed to examine the present polymorphisms in +874 region of IFN- γ genes of patients with occult hepatitis B infection.

Results: 352 (9.51%) out of 3700 blood samples were negative for HBsAg and positive for anti-HBc antibody. HBV-DNA was detected in 57 (16.1%) of HBsAg negative and anti-HBc positive samples. Our results showed that there was not any significant difference between patients and control group in polymorphisms in +874 region of IFN- γ genes.

Conclusion: This study showed that there is not any significant difference between polymorphisms in +874 region with IFN- γ occult hepatitis B infection.

Keywords: Occult hepatitis B infection, IFN- γ , Polymorphism, HBsAg, HBV-DNA

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