

Comparison of polymorphism frequencies of rs12979860 and rs8099917 SNPs of the IL28B gene in nonrecovered patients with chronic hepatitis B versus spontaneously recovered

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Introduction: Hepatitis B is considered as the most common disease of the liver and the clinical course varies from spontaneous recovery to chronic sustain infection. This study is conducted to evaluate effect of polymorphisms of IL28B on innate immune response to hepatitis B and thus the recovery or chronicity course.

Methods: In study, 83 patients with chronic hepatitis B with a positive HBsAg for at least 6 months and 94 patients with positive HBcAb and HBsAb and negative HBsAg being in spontaneous recovery status were evaluated regarding polymorphism close to IL28B gene.

For genetic evaluations, IL28B gene was replicated with PCR and polymorphisms in rs12979860 and rs9089917 were assessed with RFLP method. Then presence of these polymorphisms was compared between the two groups.

Results: Median age of patients with chronic hepatitis B was 44 years, 47 patients (56.6%) were male and 36(43.4%) were female. Median age of patients with spontaneously recovered hepatitis B was 38 years, 52 patients (55.3%) were male and 42(44.7%) were female.

Regardless of hepatitis B infection status, rs12979860 CT with prevalence of 52.5% and rs 8099917 TT with prevalence of 65.0% were the most common identified genotypes.

Polymorphism of rs12979860 was not related to recovery or chronicity of hepatitis B but rs 8099917 TT was lower than expected in spontaneously recovered patients and was positively related to chronicity of hepatitis B. there was no relation between genotype combinations and natural course of hepatitis B.

Conclusion: Polymorphism of IL28B has a role in recovery or chronicity of hepatitis B.

Keywords: Hepatitis B, Spontaneous recovery, polymorphism, IL28B..