

**POLYMORPHISMS GENES *IL10* AND *IL17A* IN PREDISPOSITION TO CHRONIC  
VIRAL HEPATITIS AND LIVER CIRRHOSIS IN KAZAKH POPULATION**

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**Key words:** *IL17A*; *IL10*; Single Nucleotide Polymorphism; Chronic Viral Hepatitis; Liver Cirrhosis.

**Introduction:** Nowadays chronic viral hepatitis B, C and their complications such as cirrhosis and hepatocellular carcinoma are important problem of health care. We study association of variations in the genes encoding cytokines *IL10* and *IL17A* and chronic viral hepatitis B and/or C leading to cirrhosis in Kazakh population.

**Methods:** The retrospective case-control study of 862 patients of Kazakh nationality was conducted. 100 patients had both liver cirrhosis and chronic hepatitis, 341 patients had only chronic viral hepatitis. The control group included 421 HBV- and HCV-negative donors without liver disease. SNPs rs8193036, rs2275913 and rs1800872 was measured by TaqMan, using genotyping DNA by Real-time PCR of peripheral blood cells.

**Results:** Data analysis for *IL17A* polymorphism showed odds ratio close to 1.0 with a confidence interval overlaps 1.0 and statistical significance  $p > 0.4$  for all comparison groups. For *IL10* rs1800872 polymorphism in the cirrhosis group OR was 1.56 (95% CI: 1.11-2.19),  $p = 0,01$  in comparison with control group A allele; for group of chronic viral hepatitis in comparison with control group A allele OR was 1.44 (95% CI: 1.14-1.82),  $p = 0.002$ .

**Conclusion:** Association of SNP rs8193036 and rs2275913 in *IL17A* gene with cirrhosis of viral etiology and/or chronic viral hepatitis B and/or C was not found. Gene polymorphism cytokine

*IL10* rs1800872 is the risk factor for chronic viral hepatitis B and/or C and further progression to the liver cirrhosis in the Kazakh population.