HEPATITIS C

#P06 - New monitoring aspects in the achievement of sustained virological response among patients with chronic viral hepatitis C: emphasis on immunological variability

T. BEVZ[1], L. MOROZ[1], H. MARTYNYUK[2], K. MYRONIUK-KONSTANTYNOVYCH[1], I. BONDARUK[1]

(1) National Pirogov Memorial Medical University - Vinnytsya (Ukraine)
(2) Central City Hospital - Rivne (Ukraine)

Background & Aims
Antiviral therapy (AT) is considered to be the only method that can stop the progression HCV infection, the development of hepatocellular carcinoma and death. The aim of our study was to assess the dependence of the frequency of obtaining a sustained virologic response (SVR) to AT on the +3725G/C polymorphism of the toll-like receptor 4 (TLR4) gene.

Methods
111 chronic hepatitis C (CHC) (1b genotype), patients who received antiviral treatment with Sofosbuvir/Ledipasvir were observed.

Results
The 91.89% of treated patients archieved SVR. The number of non-SVR s was significantly ($p<0.05$) higher among patients with the +3725C allele of the TLR4 gene (GC and CC genotypes) - 77.8% of all those who did not respond to AT were carriers of this allele. Among patients with GG genotype, only 2.41% of patients with CHC did not have SVR. According to the results of the genotypes distribution comparison according to variants of the TLR4 gene +3725G/C allelic polymorphism among patients with CHC who had received AT, the significantly higher frequency of carriers of the genotypes GG and GC was detected ($p < 0.001$) in the group of patients with SVR vs. the group without SVR. Individuals carrying the +3725G allele have a 13 fold higher chance of obtaining SVR AT use (OR = 13.5; CI 2.61, 69.81). It was established that in the majority of patients (68.63% [n = 70]) with CHC, whom a SVR was obtained in, absent liver fibrotic changes (F0) or initial stages of liver fibrosis were observed in 2.26 fold higher number of patients vs. ones with liver fibrosis/cirrhosis (F3 - F4).

Conclusions
Among patients with CHC who did not have a SVR to administered AT, there were 3.2 fold higher number of patients with severe liver fibrosis/cirrhosis (F3 - F4). 77.8% patients who did not achieve SVR were carriers of the +3725C allele of the TLR4 gene ($p < 0.05$). The odds ratios of achieving a SVR in patients with CHC with the 1b genotype were 13 fold higher among carriers of the +3725G allele of the TLR4 gene than among carriers of the +3725C allele.