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STUDY OF HEPATIC ENCEPHALOPATHY FOR QUALITY-OF-LIFE INDICATORS OF PATIENTS WITH VIRAL LIVER CIRRHOSIS

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Abstract:

The quality of life, as an integral indicator of physical, emotional and social well-being, decreases in patients with viral (HCV) liver damage already in the early stages of the disease. The most acceptable questionnaire for assessing the quality of life (QoL) in patients with viral (HCV) liver cirrhosis (LC) is the SF-36 questionnaire. According to a meta-analysis of 15 studies, in patients with chronic hepatitis C using the SF-36 questionnaire, there was a decrease in QoL compared with a healthy control group: the integral mental health component by 12.8; integral physical component of health — by 6.6 [1]. Researchers report conflicting data on the factors affecting QoL in patients with LC in the outcome of viral hepatitis C. Thus, it was found that the determining parameters of QoL are the stage of LC, age, female sex, low socioeconomic status, and marital status [2–5]. Other studies emphasize that only the stage of cirrhosis was a significant factor that reduces QoL [6]. At the same time, there are not enough studies devoted to the study of the influence of individual LC syndromes and, in particular, hepatic encephalopathy (HE) on the quality of life of patients in this category.

Keywords: cirrhosis of the liver in the outcome of chronic hepatitis C; hepatic encephalopathy; the quality of life

THE AIM OF THE STUDY was to assess the effect of PE on the quality of life of patients with viral cirrhosis in the outcome of chronic hepatitis C.

OBJECT AND METHODS OF RESEARCH. A one-stage study of PE and QoL was performed in 183 patients with HCV-LC (98 men and 85 women; age 46 (37; 55) years). The distribution by functional classes of cirrhosis (according to Child-Pugh) was as follows: class A - 54 patients; Class B cirrhosis — 63 patients; class C — 66 patients. The assessment was carried out in comparison with the reference values of indicators in 160 practically healthy individuals (80 men and 80 women; age - 43 (35; 53) years). The studied groups had no differences in age, sex, education and income level, $p>0.05$**.** The criteria for inclusion of patients in the study were obtaining informed consent to participate in the study; verified diagnosis of cirrhosis; positive PCR test for hepatitis C; age from 18 to 60 years. The exclusion criteria included other etiological factors of cirrhosis, except for viral hepatitis C; severe concomitant pathology (in the stage of sub- and decompensation); active addiction; HIV infection.

The degree of PE was determined by the Reitan psychometric number connection test (TST). The severity of PE was determined by the time spent by the patient on the task. In the absence of PE, the task is completed in less than 40 seconds.

When studying the quality of life, the SF-36 questionnaire was used, in which 36 questions were grouped into 8 scales: physical functioning, role activity, bodily pain, general health, vitality, social functioning, emotional state and mental health. The first four scales were grouped into an integral indicator of the physical component of health, and the last four into the psychological component of health. The scores on each scale range from 0 to 100 points, where 100 points correspond to "complete health".

RESULTS. The SDCh index in the general group of patients with viral HCV-LC was 92 (40;104) sec. Moreover, with the aggravation of FC CP, the syndrome of PE, assessed by DST, progressively worsened. So, in patients with HCV-LC class A, the TST was within the normal range and amounted to 33 (31; 40) sec; patients with HCV-LC class B — 91.5 (85;102) sec; patients with HCV-LC class C — 99.5 (94; 117) sec. Differences between all classes of cirrhosis were significant, $p<0.001$**.** The study of QoL indicators in patients with HCV-LC in the general group revealed a decrease in all eight indicators assessed by the SF-36 questionnaire compared with practically healthy individuals, $p < 0.001$. Thus, the indicator of "physical functioning" was 55 (35; 70) points; "role-based physical functioning" - 50 (25; 75) points; "Pain intensity" - 56 (46; 64) points; "general health" - 47 (20; 52) points; "vital activity" - 35 (25; 45) points;

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"social functioning" - 50 (25; 63) points; "role emotional functioning" - 33 (33; 67) points; "mental health" - 48 (32; 56) points.

Comparative analysis of the studied parameters revealed low quality of life in patients with HCV-cirrhosis already at the stage of functional class A and their significant decrease in patients with class B cirrhosis compared with patients with class A cirrhosis ($p<0.001$), as well as in patients with class C cirrhosis compared with a group of patients with cirrhosis of class A and B ($p<0.001$).

At the same time, the correlation analysis of the relationship between the TSF value and QoL indicators in patients with class A viral HCV-LC did not establish a significant relationship with the parameters of both the "physical health component" and the "psychological health component" of QoL, $p> 0.05$.

In the group of patients with class B viral HCV-cirrhosis, it was revealed that all indicators included in the integral indicator of the "psychological component of health" had a negative and high relationship with the values of the TSF. Thus, the correlation coefficient of the TSC with the indicator "vital activity" was $r= -0.71$, $p<0.01$; "social functioning" - $r = -0.73$, $p<0.01$; "role emotional functioning" - $r = -0.67$, $p < 0.01$; "mental health" - $r = -0.71$, $p<0.01$.

In patients with viral HCV-LC class C, the values of such scales included in the psychological component of health as "vital activity" and "mental health" also had a negative relationship with TST: $r = -0.71$, $r = -0.47$, $p <0.01$. As in patients with HCV class B cirrhosis, a significant association of SST with "role emotional functioning" and "social functioning" was established: $r = -0.66$, $r = -0.69$, $p<0.01$.

Correlation between TST and indicators of the "physical component of health" in patients with viral HCV-cirrhosis of class B and C was not established, $p> 0.05$.

CONCLUSION. QoL in patients with viral HCV-LC is reduced and worsens with the progression of the functional class of LC. PE affects the indicators of the "psychological component of health" (SF-36) in patients with viral HCV-LC class B and C, $p<0.01$. Correlation between PE and the "physical health component" (SF-36) of patients of this category of all functional classes has not been established, $p > 0.05$. Low indicators of the "physical component of health" in patients with viral (HCV) cirrhosis are obviously associated with various pathophysiological mechanisms of chronic liver failure.

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