



Biochemical Changes in the Liver After Covid-19 Disease in Alcohol-Dependent Patients and Their Effects on the Course of Alcoholism

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Abstract: In the vast majority of patients with alcoholism, various liver pathologies are observed. In patients receiving chronic alcohol products, at the expense of alcoholic intoxication, pathomorphological and functional changes in the liver are caused. This in turn leads to an increase in the tendency to various infectious diseases in the immune system and as a result at the expense of changes in the liver. In particular, the transmission of Covid-19 infection to my body is also facilitated. Even at the expense of Covid-19 infection, cytokines have a strong damaging effect on liver cells at the expense of storming and hypoxia. At the expense of these double effects, the changes in the liver do not have their own effect on the course of alcoholism.

Keywords: alcoholism, liver diseases, COVID-19, biochemical changes.

Introduction: the problem of Alcohol Dependence is global in nature and has maintained its relevance to this day, another global problem is Covid-19 and its complications. One of the diseases that unites both of these diseases is liver disease [1-14]. The mechanisms of damage to the liver of COVID-2019 have not been fully studied so far. COVID-19 disease causes systemic inflammation in the body, causing a storm of cytokines, and these lead to increased activity of all transaminases in the body [15-32]. A study by foreign scientists conducted by brogan shows that 20% of patients with COVID-19 had changes in liver tests, that is, they found that ALT, AST, total bilirubin and gamma glutamyltransferase were 3 times higher than the upper limit of the norm. In another study, patients who experienced a mild case of COVID-19 had an increase in AST indicators of 18,4%, and patients who had severe cases of the disease had 39,6% [33-42].

The purpose of the study. A study of biochemical changes in the liver after covid-19 disease in alcohol-dependent patients and their effects on the course of alcoholism.

Materials and methods of research: The study was conducted in 140 patients undergoing treatment at the Samarkand regional branch of the Republican specialized scientific and practical medical center of Narcology. The average age of patients was $37,4 \pm 6,3$ years, and all of them were male. The examiners were divided into two groups. The main group has 80 alcoholism patients who have experienced Covid-19 disease. The control group has 60 alcoholism patients who are not infected with Covid-19. Biochemical analysis of blood as the main examination method



Allaninaminotransferase (ALT), aspartataminotransferase (AST), total bilirubin, total protein examined.

Research results: When the patients of the main group were examined, $54,5 \pm 9,6$ increases in ALT compared to the norm, $63,6 \pm 4,2$ increases in AST, an increase in total bilirubin levels was found to be $24,3 \pm 3,6$ and a decrease in total protein $63,3 \pm 2,9$.

When the control group patients were examined, it was found that the ALT amount had not changed $35,4 \pm 2,6$ of the relative $44,6 \pm 3,2$ AST amount, the proportional increase of the total bilirubin amount was $18,2 \pm 2,4$, and the total protein $74,2 \pm 3,3$ had hardly changed.

When the main and control groups were compared between alcoholism patients who had already experienced Covid-19 disease, the control group observed an increase in ALT and AST levels, relatively high albumin levels, and a decrease in total protein levels compared to patients who had not had Covid-19 disease.

Conclusions. As a result of our study, it turned out that patients who had experienced Covid-19 with alcoholism had an increase in ALT, AST and total bilirubin in the biochemical blood sampling. In patients who have not been diagnosed with Covid-19 while alcoholism has been present, these markers have changed relatively less this means that changes in the main group are associated with complications from COVID-19. These changes have a direct impact on the course of the disease of alcoholism.

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