

# The Severity of the Pathophysiology, Specificity, and Clinical Course of Chronic Liver Diseases, Particularly Chronic Hepatitis

**Raupov Abdurahmon Ortiq o'g'li**

Bukhara State Medical Institute named after Abu Ali ibn Sina, Uzbekistan, Bukhara, st. A. Navoi  
[raupov.abdurahmon@bsmi.uz](mailto:raupov.abdurahmon@bsmi.uz)

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**Annotation:** For many years, chronic liver diseases have been one of the main and urgent problems of the fields of Gastroenterology and Hepatology. In particular, statistical indicators show that in the last 20 years, the incidence of liver diseases in the population has increased significantly. In a single case, statistics obtained on the scale of the CIS countries show that as a result of observations conducted in the population for 12 months, from 500 to 1,000,000 people were registered liver diseases caused by damage to the liver by various etiological factors. Unfortunately, to date, about 2 billion residents on Earth suffer from liver diseases. From year to year, the reason for the increased damage to liver cells is the increased diversity of etiological factors. In particular, with the damage of liver cells to medicamentosis, viral, toxic, alcohol and autoimmune, 2-3 million inhabitants are being registered every year. For this reason, we can cite the fact that most drug preparations are metabolized in the liver, that carbohydrates, proteins, fats are metabolized in the liver, and that the liver plays an important role in external and internal disintoxication.

**Keywords:** Hepatitis, liver fibrosis, alcoholic liver damage, hepatitis C.

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Certain diseases have been found to leave a 'metabolic imprint,' that persists for a long time in the provaridida, even though they end up recuperating. That being said, in the transition of liver diseases to chronic form, viral and alcoholic liver damage plays an important role in the occurrence of cirrhosis of the liver and hepatocellular carcinoma. The fact that the population of Russia alone is a leader within alcohol-consuming countries requires special attention to alcoholic damage to liver cells. European scientists take brogan research to show that 4.6% of disability and 3.8% of lethality ( 1.8% among women and 11.0% among men ) occurred precisely as a result of alcohol consumption . Among the factors that cause liver fibrosis, alcohol is a 33% indicator [ 1 ] .

Hepatitis with viral etiology remains one of the current problems of the health system today. Of particular importance is the increase in % of the spread of hepatitis B ( anti-HBsAG+), a virus etiology transmitted by blood as a result of injection, due to the spread of drug addiction in the Russian Federation in the last decade. Nearly 4/5 of drug addicts using injectable drug form have been found to be infected with hepatitis B, C, D ( anti - HBsAG + , anti -HCV+ , anti-HDV+ ) with viral etiology, or more than one type at a time. Including the fact that hepatitis occurs in the miks i.e. b+c, b+D Or several hepatitis viruses occur at the same time is also one of the pressing problems. The bad thing about this condition is that the clinic, diagnosis and treatment of this type of hepatitis produces a number of complications and the transition to liver cirrhosis is characterized by a high % [ 2 ] .

The result of observations conducted by the WHO in 2018 showed that 71 million residents suffer from hepatitis C with viral etiology. To date, this figure is 58 million. And about 1.5 million New affected patients are being registered every year. The danger of this is that, in addition to being an infectious disease , it is also characterized by severe complications. Data from the WHO shows that around 290,000 hepatitis C infected patients in 2019 approximately lost their lives early due to its severe complications, notably liver cirrhosis and hepatocellular cancer. [ 3 ]

One factor that causes cirrhosis of the liver is the viral genotype. Chronic hepatitis B can cause cirrhosis of the liver to occur in 2-4 % ( especially genotype C ) , chronic hepatitis C ( genotype 1b ), and chronic hepatitis D in 40% of cases .

The persistence of the disease, i.e. viral persistence, may be one of the factors leading to fibrogenesis. Ryder S.D. (2022) lead brogan studies have shown that 28% (63) of 225 patients with chronic hepatitis C under investigation had moderate activity and did not receive a specific treatment had levels of 1 and above on the Knodell scale of fibrosis for 2 years and 2 months. The average progression of fibrosis was 0.12 units per year. There are a number of factors that contribute to increased fibrosis in patients ' virus infestation (patient age, male sex, and alcohol consumption).

The severity of the disease also affects the course of the fibrogenesis process. Research conducted by Herve and other co-authored scientists shows that RNA HCV +( positive) patients had liver cirrhosis in 4% of the group (80 patients) in a condition with a norm of ALT in their blood, 13% of the group in a condition above the ALT index norm (455 patients). [ 4 ]

Research by Persico M and other co-authors (2021-y) shows that 37 blood assays with surukali virus etiology hepatitis C (anti-HCV +) did not identify any pathological cases in liver histological tests of patients with ALT levels.

Today, among a contingent of patients aged 36-65 in progressive states, mortality as a result of liver cirrhosis has increased significantly, and the frequency of occurrence of liver cirrhosis is 15-30 per 100,000 inhabitants. The WHO data shows that every year 1 million inhabitants leave the world Bright from this disease. This represents 2% of the death rate on Earth. Statistics show that colorectal cancer is the 1st highest mortality rate among the population in Australia, while cirrhosis of the liver is the next highest. In Australia, more than 1 million people died of cirrhosis

of the liver in 2010. In the Russian Federation, however, liver cirrhosis ranks 4th in terms of occurrence among the population. Among cis Dava, however, the incidence of liver cirrhosis in the population is 1%. On Earth, about 45 million people die a year as a result of hepatocellular carcinoma caused by liver cirrhosis and chronic virus etiology hepatitis B. In addition to cirrhosis of the liver being a common disease, the proportion to women becomes common among men. The disease can cause a decrease in the quality of life in provardias, early disability and death. Among men aged 65-74, the frequency of death from liver cirrhosis is 49 out of every 100,000 residents, while among patients aged 75-84, the frequency of death is 7 out of every 100,000 residents. Lethal etiological factors include alcoholic liver cirrhosis at 42.8 – 63.4 %, and liver cirrhosis caused by hepatitis C with chronic viral etiology at 8.6 – 11.8%. In some patients (about 3/5 parts) with clinical symptoms at night and this forces them to go for a doctor's examination. Sometimes, however, patients (about 1/5 parts) experience latent and clinically unmarked liver cirrhosis. In these cases, however, patients diagnose their disease from the clot during medical examinations and diagnostic procedures.

Patients suffering from cirrhosis of the liver undergo a fibrosis process in the liver cells, a violation of organ architectonics, while a necrotic inflammatory process occurs, accompanied by the formation of regeneration nodes. This results in compression of the internal veins of the liver, the vein of the gatehouse, and the origin of portal Hypertension. Scientific research devoted to determining the role of cytokines in the pathogenesis of cirrhosis of the liver and the origin of its complications has been increasing in recent years. [ 5 ]

In the physiological state, cytokine Ito cells perform the main function in fibrogenesis by controlling fibroblasts in liver cells. Ito cells maintain a balance between them by simultaneously producing an antifibrotic factor along with a profibrotic factor. Antifibrotic factors include metalloproteases such as collagenase, gelatinase, stromolysin.

To date, the importance of cytokines is widely studied in various complications of liver cirrhosis, in particular, portal hypertension, bleeding in vessels with enlarged esophageal veins varicose veins, hepatic encephalopathy, polyorgan deficiency. [ 6 ]

In recent years, however, the importance of the cytokine system in chronic liver disease and the correlation of the cytokine system with other regulatory systems has been studied by a number of scientists in their research.

Scientific research by a number of scientists shows that the chronic nature of viral infections and the genetically controlled immune system and immunogenetic mechanisms play an important role in the progress of chronic hepatitis. as a result , there are also ideas that some individuals are susceptible to infection with the virus , while others have resistance.

Recent research by a number of scientists has shown that an increase in the amount of inflammatory cytokines such as fno-a, IL-1 , IL-6 in combination with a decrease in serum levels of anti-inflammatory cytokines such as IL-4 , IL-10 can cause complications of liver cirrhosis , in particular portal hypertension , hepatic encephalopathy, assitis, assitis-peritonitis . In a word, in cirrhosis of the liver, the balance between inflammatory and anti-inflammatory cytokines is disturbed. In turn, inflammatory cytokines have a significant role in the pathogenesis of liver cirrhosis as well as the occurrence of complications such as portal hypertension , assitis, hepatic encephalopathy, liver failure[ 7 ] .

In liver tissue, hepatocytes make up about 67% of cells and the remaining almost 33% are sinusoidal endothelial cells , Ito cells , kupfer cells, intracellular lymphocytes and biliary system cells. Lymphocytes in turn occur simultaneously in both the liver parenchyma and the portal tract. CD8+- and CD4+- subpopulations of lymphocytes bind to antigens in class I and Class II MHC ( Major Histocompatibility Complex ) mining textile . The liver typically has less CD4+-cell content than CD8+- cells .

Alcoholic liver disease is a disease accompanied by inflammation and scarring of the liver,

which occurs as a result of excessive consumption of alcohol in moderation. The organ in which alcohol is metabolized is the liver. Today, we can say that the disease as a cause of global social significance is its prevalence, complications and burden on the health system. The sad thing is that there has not yet been a method for treating this type of disease that gives a lump-effective result from limiting alcohol consumption. According to reports, 2/5 of patients who died of liver cirrhosis in the United States alone had alcoholic liver damage. Cases where alcoholic liver damage accounted for 1/2 of the 3-month mortality rate in severe forms of this disease were also observed. A similar indicator suggests that failure to treat the disease on time is more likely to lead to fatal outcomes. [ 8 ]. Among chronic liver diseases in the UK, alcoholic liver disease is 3/5. In 2019 alone, 24,000 patients died due to this disease. To date, however, among the diseases leading to liver transplantation, alcoholic liver disease stands in the forefront.

Under the influence of pathogens, toxins, tumor cells, antigens, liver cells are constantly strained. We can cite the loss of tolerance to personal antigens as the cause of autoimmune hepatitis. Autoimmune hepatitis is a specific disease that is differentiated by chronic liver inflammation, hypergammaglobulinemia, lymphocytic infiltrates, and the appearance of autoantibodies. Despite the fact that autoimmune hepatitis is a widespread disease around the world, the lack of timely diagnosis causes a variety of epidemiological data. Among the peoples of Northern Europe alone, the annual incidence of AIG is 1.9 per 100,000 inhabitants.

Liver transplantation is performed in 2.6% of surgical interventions in Europe, 5.9% in the United States, partly due to AIG. There is a higher incidence of women with AIG compared to men (in a ratio of 1: 3.6). According to Czaja and other co-authored scientists, the incidence is dependent on geographic status in adult humans, with 0.67-2 per 100,000 population. The frequency of AIG cases between us and Canadian children is between 0.4 and 0.23 per 100,000 inhabitants per year [ 9 ].

**Conclusion:** New coronavirus infection COVID-19 continues to spread across the planet and New causing problems. The effects of the virus on the human body have not yet been sufficiently studied. Coronavirus damages the lungs, kidneys, vascular wall and digestive tract, and as a result the patient develops severe hypoxemia and polyorgan deficiency. Liver function in severe cases violations can also be observed. Fatal in severe acute liver failure cases have also been reported. To determine the degree and causes of liver damage in Covid-19, in this area to study the course of Covid-19 in patients with chronic liver diseases further research is required.

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