# DIAGNOSTIC INDICATORS AND CLINICAL MANIFESTATIONS OF FIBROTIC CHANGES IN CHRONIC HBV INFECTION.

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***Introduction.*** *Hepatitis B virus is one of the leading causes of chronic liver diseases such as hepatocellular carcinoma and cirrhosis. The number of HBV-infected people worldwide is estimated at more than 400 million, and the complications associated with the infection have become a serious global health problem. Evaluating liver fibrosis is crucial for making therapeutic decisions and predicting outcomes in patients with chronic hepatitis B.*

***Keywords:*** *chronic hepatitis B, inflammation, damage.*

**The aim of the study** was to examine the clinical and biochemical characteristics of patients with chronic hepatitis B without and with fibrosis.

**Materials and Methods**

The study involved 50 individuals diagnosed with chronic hepatitis B (CGD) who were undergoing inpatient treatment at the General Therapy Department of the Tashkent State Medical University Multidisciplinary Clinic. The patients were divided into two groups. Group 1 consisted of patients with CGD without fibrosis, while Group 2 consisted of patients with CGD and fibrosis. Fifteen apparently healthy participants were also included as a control group. The diagnosis of CGD was based on a history of clinical manifestations, laboratory data, and instrumental examinations.

The laboratory examination plan included a comprehensive biochemical analysis (ALT, AST, bilirubin, and total protein), a coagulogram, clinical and laboratory tests of hematological parameters (hemoglobin, red blood cell (RBC), white blood cell (WBC), platelet count, and differential leukocyte count), and a complete urinalysis. The objects of the study of the 1st group were 25 patients with CGD: 14 men (44.0%), 11 women (56.0%). The age of the patients ranged from 40 to 75 years, the average age was 64.4 years. In 46% of patients, the disease proceeded in moderate activity, in 25.5% - in severe activity, in 22.22% and 7.7%, minimal and mild activity were noted, respectively. The objects of the study of the 2nd group are 25 patients with CGD receiving treatment at the multidisciplinary clinic of TashSMU in the department of hepatobiliary pathology. Among them, 15 were men (60.0%), 10

women (40.0%). The patients ranged in age from 40 to 75 years, with an average age of 61.8 years. They were treated between October and December 2025 and received standard therapy. The patients' main complaints included heartburn, nausea, pain and heaviness in the right upper quadrant, fatigue, indigestion, and decreased work capacity.

**Results.** The clinical picture was characterized by weakness, decreased appetite, nausea, and pain in the right hypochondrium. Vomiting was observed in 88% of patients with chronic hepatitis B (CGD) with fibrosis, decreased appetite in 96%, and weakness in 96% of patients with CGD with fibrosis, which was significantly higher than in patients with CGD without fibrosis. In addition, jaundice was accompanied by intense itching in five patients. Pain in the right hypochondrium was reported by 88% of patients in Group 2, which was 30% higher than in Group 1. Hepatomegaly was detected in the overwhelming majority of patients, with the liver protruding, on average, 2 centimeters beyond the costal margin.

A blood biochemistry test for key liver parameters, such as bilirubin (direct and total) and liver enzymes (alanine aminotransferase (ALT), aspartate aminotransferase (AST), gamma-glutamyl transferase (GGT), and alkaline phosphatase), will assess how well the liver is performing. For example, a significant increase in blood bilirubin (hyperbilirubinemia) is often observed in patients with fibrosis (Table 2). ALT is one of the key indicators in identifying liver pathologies. Not only the levels of these substances are important, but also the AST/ALT ratio, which is normally 1.33±0.42. Thus, patients with fibrosis of varying degrees of severity have shown significantly elevated ALT and AST liver enzyme activity. Typically, a mild or asymptomatic viral infection causes a short-term increase in ALT levels without significant impairment of liver function. In the group of patients with chronic hepatitis B with fibrosis, an increase in ALT, AST and bilirubin levels by 16%, 35% and 16.3%, respectively, was observed compared to the group of patients with chronic hepatitis B.