

# Diagnostic Significance of Clinical and Objective Signs in Chronic Viral Hepatitis C

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**Received:** 26 February 2025; **Accepted:** 22 March 2025; **Published:** 25 April 2025

**Abstract:** This article describes the prevalence and clinical features of 105 patients with chronic hepatitis. As a result of the study, it was found that the disease is more common in women and the different picture of subjective or objective symptoms is higher in patients.

**Keywords:** Chronic hepatitis, liver, virus, subjective sign, objective sign.

## Introduction: Relevance and importance of the topic.

According to the World Health Organization (WHO), 3% of the world's population, or approximately 170 million people, are infected with the hepatitis C virus (HCV). According to the researched scientific analysis, the wide distribution of liver tissue damage caused by the virus, the high percentage of it becoming chronic and liver cirrhosis and liver tumor indicate that the disease is not only a medical, but also a social problem [1,2,5,8,9]. The disease in 80% of cases becomes chronic and undergoes constant mutations, the difficulties in creating a vaccine and the high cost of treatment make the disease a pressing problem in modern therapy and infectious diseases. Acute and chronic forms of viral hepatitis are often asymptomatic, and laboratory tests are also observed in borderline values [2,3,4,5,10,11]. Currently, much attention is being paid to the systematic study of the clinical and laboratory features of chronic viral hepatitis. However, the number of studies that can confirm this idea is extremely small, and the data they contain are unreliable. Based on these considerations, the aim of our work is to assess liver function in patients with chronic viral hepatitis by determining clinical and laboratory markers and biochemical parameters.

Viral hepatitis C continues to be the most important medical and social problem worldwide. This is due to

high morbidity, especially among young people, the severity of complications and the degree of chronicity. Viral hepatitis C is the most common cause of hepatocellular carcinoma. Chronic viral hepatitis C is one of the socially significant infectious diseases. The importance of this disease is determined by the high proportion of chronicity of acute hepatitis (up to 80% of cases), the ability of the hepatitis C virus to constantly mutate and the associated difficulties in creating a vaccine, the high cost of treatment [5, 7, 11]. In 2019, according to the World Health Organization (WHO), 71 million people worldwide were infected with the hepatitis C virus, and 350,000 to 500,000 people die each year. Chronic viral hepatitis C is considered one of the leading causes of liver cirrhosis and the development of hepatocellular carcinoma. It is the clinical outcomes of hepatitis C that more often than other etiological factors lead to transplantation. According to various authors, 250-400 million people chronically infected with the hepatitis C virus are registered in the world. The relevance of the problem is also associated with the possible consequences of chronic viral hepatitis. It has now been proven that chronic HCV infection leads to progressive liver inflammation; in 20-30%, progression of liver cirrhosis with subsequent decompensation or formation of hepatocellular carcinoma is observed [3]. It has been established that in patients with hepatitis B, in 70-90%

of cases, hepatocellular carcinoma may develop at stages up to the development of liver cirrhosis [2]. The study of the mechanisms of pathogenesis of chronic viral liver diseases against the background of the growth of this pathology in the world is an urgent task of hepatology. The basis of liver damage in HCV infection is a combination of direct cytopathic and immune-mediated cellular damage induced by the virus [1]. It is believed that disruption of the liver structure with the development of necrotic and fibrotic changes in it is associated with the level of production of proinflammatory cytokines - interleukin-6 and tumor necrosis factor alpha (TNF- $\alpha$ ) [4].

It is known that TNF- $\alpha$  is involved in tissue destruction and reparation processes against the background of inflammation, and its elevated level is observed in viral and bacterial infections, oncological diseases and many inflammatory reactions. During an exacerbation of gastrointestinal diseases, the concentration of TNF- $\alpha$  in the blood serum exceeds the norm by an average of 10 times, and in some patients by 75–80 times [2,8].

## METHODS

The study included data on the results of clinical, laboratory and instrumental examinations of 105 patients diagnosed with chronic viral hepatitis. 67 (64.1%) of the patients were female, 38 (35.8%) were male, and their age ranged from 20 to 75 (mean  $44.2 \pm 3.2$ ) years. The results of the examination were assessed using a clinical-reference card (questionnaire). The study was approved by the members of the ethics committee established under the auspices of the Bukhara Medical Institute. Inclusion criteria for the study: patients with chronic hepatitis aged 20-75 years; persons who provided written consent for clinical, laboratory and instrumental examinations. Exclusion criteria: alcohol or drug addiction, toxic hepatitis, alcoholic hepatitis, serious illnesses (uncontrolled arterial hypertension, type 2 diabetes mellitus in the decompensation stage, chronic heart failure III-IV functional class, patients with myocardial infarction and stroke), pregnant and

lactating women. To rule out alcoholic liver disease, a history (absence of regular alcohol consumption) was collected and screened using a special CAGE questionnaire [4]. During the study, a comparative assessment was performed with 60 healthy subjects (aged 20-65). In the process of diagnosing patients, anamnesis data were collected, laboratory and ultrasound examinations were used. Abdominal ultrasound examination (assessing the size of the liver and spleen, the condition of the parenchyma, the extrahepatic bile ducts, the vascular pattern of the liver, identifying signs of portal hypertension: the presence of ascites, the diameter of the splenic vein  $> 10$  mm, portal vein  $> 13$  mm, splenomegaly, re-drainage of the umbilical vein was determined by parameters and the following symptoms were noted: liver enlargement, increased echogenicity, relatively decreased liver density compared to the spleen (liver-spleen index less than 1), decreased sound conductivity, poor visualization of the portal and hepatic veins.

Ultrasound elastography was performed in 105 patients to rule out fibrosis in liver parenchyma.

Biochemical tests of blood: alanine aminotransferase (ALT) and aspartate aminotransferase (AST),  $\gamma$ -glutamyltranspeptidase (GGTP), alkaline phosphatase (IF), total bilirubin, total protein and its fractions, blood clotting system activity were studied.

The obtained data were statistically processed using the Student's t-test, and the difference in results with  $P < 0.05$  was considered reliable

## RESULTS

The ratio of women to men in our study was 1.3:1. The prevalence of chronic hepatitis by age is shown in Table 1.

**Table 1.**

### Description of the examined group of patients

Indicators		Main group n =105	Control group n=60
Men	N	38	25
	%	35,8	41,6
Woman	N	67	35
	%	64,1	58,3
Average age of patients		$44,2 \pm 3,2$	$44,2 \pm 3,2$

As can be seen from Table 1, when analyzed by gender, the results of the analysis showed that SG is more common in women, and is observed mainly in the working-age population.

To assess the characteristics of clinical manifestations,

the first task was to determine the range of leading symptoms that make up the essence of the disease. After that, each clinical and objective sign was analyzed. The frequency and incidence of clinical signs in SG were analyzed in detail.

**Table 2.**

**The rate of meeting subjective and objective symptoms in chronic hepatitis**

Indicators	Asymptomatic Occurrence	Subjective or objective signs	Occurrence of subjective and objective signs
Asthenovegetative syndrome - weakness, reduced work capacity, sleep disorders, agitation, low mood, headache, weight loss	26 (25%)	55 (45,8%)	35 (29%)
Dyspeptic syndrome – biliary dyspepsia with a bitter taste in the mouth, nausea, belching, Intestinal dyspepsia – flatulence, persistent diarrhea	27 (25,8%)	61 (50,8%)	28 (23,3%)
Pain syndrome - pain under the right rib, a feeling of heaviness	24 (23,3%)	59 (49,1%)	33 (27,5%)
Cholestatic syndrome - yellowing of the skin, sclera, mucous membranes	28 (26,6%)	58 (48,3%)	28 (23,3%)

The main set of clinical symptoms characteristic of chronic hepatitis is as follows: weakness, reduced work capacity, sleep disorders, irritability, low mood, headache, weight loss, heaviness and discomfort under the right rib, flatulence, constipation, flatulence, yellowing of the skin and sclera.

As can be seen from the data presented in the table, the frequency of symptoms in CKD varies and depends on the stage of the disease.

It was observed that 25% of patients had no symptoms of asthenovegetative symptoms, 45.8% of patients had only one of the subjective or objective symptoms, and 29% of patients had only one of the subjective or objective symptoms.

Among the dyspeptic symptoms, 50.8% of patients had a full sensation of bitterness in the mouth, nausea, while dyspeptic syndrome was observed in 23.3% of

patients, and 25.8% of patients had no symptoms. Pain under the right rib, a feeling of heaviness, subjective and objective signs were found in 49.1% of patients, and objective signs were found separately in 27.5% of patients

Cholestatic syndrome - yellowing of the skin, sclera, mucous membranes was not observed in 28.3% of patients, subjective and objective symptoms were observed in 48.3% of patients, and only one symptom was observed in 23.3% of patients.

In conclusion, it was found that chronic hepatitis is more common in women than in men. The clinical picture often shows a combination of subjective and objective signs.

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