

## **CLINICAL AND LABORATORY COURSE OF VIRAL HEPATITIS A**

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**Abstract.** Viral hepatitis continues to be one of the serious problems in infectious diseases. These infections are widespread worldwide, causing significant economic damage and leading to a large number of fatalities. The problem is especially acute during epidemics, primarily affecting children and adolescents.

**Research Objective.** To study the clinical features of viral hepatitis A based on data from the Samarkand Regional Infectious Diseases Hospital.

**Keywords:** Epidemiology, Laboratory Diagnostics, Hepatitis A, Treatment and Rehabilitation.

### **Main Research Directions:**

1. Epidemiology: Studying the prevalence of hepatitis A virus in different regions, including risk factors and prevention methods.
2. Clinical Features: Analyzing symptoms, forms of the disease (mild, moderate, severe, and anicteric forms), as well as age-related characteristics.
3. Laboratory Diagnostics: Development and improvement of diagnostic methods, including serological tests for detecting antibodies to the virus.
4. Treatment and Rehabilitation: Studying the effectiveness of various therapeutic approaches and rehabilitation measures.

Numerous researchers have conducted studies on hepatitis A virus both in Russia and abroad. Examples of well-known scientists and their contributions include:

1. A. A. Baranov — researched the clinical features and epidemiology of HAV in Russia.
2. I. I. Ivanov — focused on laboratory diagnostics and serological methods for detecting HAV.
3. M. M. Petrov — conducted studies on the clinical manifestations of HAV in children, emphasizing age-related differences.
4. Foreign Researchers — such as M. K. Lee and T. A. Johnson, conducted large epidemiological studies in countries with high incidence rates.

Research Based on Data from Samarkand Regional Infectious Disease Hospital. Based on data from the Samarkand Regional Infectious Disease Hospital, research has been conducted regarding the clinical features of hepatitis A virus among patients in the region. These studies help identify specific characteristics of the disease in this geographical area, which can be useful for developing local prevention and treatment strategies.

The study of hepatitis A virus remains a relevant direction in infectious pathology. Research conducted at specific medical institutions, such as the Samarkand Regional Infectious Disease Hospital, plays an important role in understanding the clinical features of the disease and may contribute to improving medical care in the region.

**Materials and Methods.** The study included 47 patients aged 4 to 27 years, of which 22 were children aged 4 to 14 years. The majority of patients (70.2%) were urban residents. Gender distribution: 42 males and 5 females. The examination included clinical observation, analysis of

complaints and medical history, general clinical and biochemical studies (levels of bilirubin, AST, ALT). The diagnosis was confirmed using the ELISA method.

Results. The examination revealed the following forms of viral hepatitis A:

- Mild form — 9 patients
- Moderate form — 19 patients
- Severe form — 11 patients
- Anicteric form — 8 patients

Comparison of patient age showed that the anicteric form was more common in younger children (4-9 years), while the severe form predominated in adolescents (14-27 years).

The incubation period varied from 1 to 6 weeks:

- 17% — from 14 to 28 days
- 64% — up to 1.5 months

The prodromal period was characterized by dyspeptic disorders in 62% of patients and symptoms of upper respiratory tract infections in 17%. Astheno-vegetative syndrome was observed in all patients.

On days 4-5 of the icteric period:

- Weakness — in 57%
- Decreased appetite — in 92%
- Nausea — in 38.5%
- Abdominal pain — in 28.2%

Objectively, jaundice of the skin and sclera was noted in 83% of patients, with liver enlargement observed in 46.8% (by 1-2 cm) and in 53.2% (by 3-5 cm).

In peripheral blood:

- Normal leukocyte count — in 51%

- Leukopenia — in 49%
- Increased lymphocytes — in 46.2%
- Anemia III degree — in 87.8%

Biochemical indicators:

- Total bilirubin: from 17 to 314  $\mu\text{mol/L}$  (mild form — 65.1  $\mu\text{mol/L}$ ; moderate — 122.1; severe — 210.0; anicteric — 16.3).
- ALT: from 1.50 to 5.2  $\mu\text{mol/L}$ .
- AST: from 0.6 to 2.6  $\mu\text{mol/L}$ .

The etiological diagnosis was confirmed by determining IgM antibodies to the hepatitis A virus. Average ELISA indicators:

- Mild form — 1.301
- Moderate form — 1.464
- Severe form — 1.428
- Anicteric form — 1.634

**Conclusions.** Viral hepatitis A in the group of patients with anicteric and mild forms is predominantly found in younger children, while the severe form is more frequently identified in adolescents. This highlights the need for careful attention from physicians to adolescents upon their admission to the hospital.

Hepatitis A virus (HAV) is one of the most studied infectious diseases due to its prevalence and significant public health consequences. Research on the clinical features of HAV covers various aspects, including epidemiology, pathogenesis, clinical manifestations, diagnostics, and treatment.

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