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## **CHARACTERISTICS AND COURSE OF ACUTE VIRAL HEPATITIS IN CHILDREN**

**Summary.** In this regard, the insufficient knowledge of the features of the epidemic process in vh, the course options, and the clinical forms of the disease in children in the andijan region is still a topical issue. Highly sensitive and highly specific diagnostic methods polymerase chain reaction (pcr), in particular enzyme immunoassay (elisa), have been developed and introduced into healthcare practice, thanks to which the circulation of viral hepatitis a, b, d, c, e in uzbekistan has been proven. However, not in all regions of the republic effectively use these diagnostic methods.

**Key words:** Polymerase chain reaction, enzyme immunoassay, inapparent, viral hepatitis, serological, biochemical.

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## **ХАРАКТЕРИСТИКА И ТЕЧЕНИЕ ОСТРОГО ВИРУСНОГО ГЕПАТИТА У ДЕТЕЙ**

**Резюме.** В этом отношении до сих пор актуальным вопросом является недостаточная изученность особенностей эпидемического процесса при ВГ, вариантов течения, клинических форм болезни у детей в Андижанской области. Разработаны и внедрены в практику здравоохранения высокочувствительные и высокоспецифические методы диагностики полимеразная цепная реакция (ПЦР), в частности иммуноферментный анализ (ИФА), благодаря которым доказана циркуляция в Узбекистане вирусных гепатитов А, В, Д, С, Е. Однако не во всех областях республики эффективно пользуются этими диагностическими методами.

**Ключевые слова:** полимеразная цепная реакция, иммуноферментный анализ, иннаппарантных, вирусных гепатитов, серологических, биохимических.

**The relevance of the work.** Despite the fact that at least 7 nosological forms of viral hepatitis are currently known, such as hepatitis A, B, C, D, E, F and G, official registration of all forms is not carried out. In addition, the etiological structure of viral hepatitis in most regions of the country remains poorly understood. Based on this, viral hepatitis occupies one of the leading places in infectious pathology and represents an urgent problem for public health. In recent years, highly sensitive methods for the specific diagnosis of hepatitis A, B, C, D, and E have been developed and introduced into healthcare practice [2, 3]. The use of these methods makes it possible to study the etiological structure and breadth of the spread of hepatitis in specific areas, to determine the regions endemic for certain nosological forms, and to identify clinically undiagnosed variants of the course of infections. Progress in the development of methods for specific laboratory diagnostics also contributes to a more complete study of the prevalence of inapparent forms of viral hepatitis, including HB-virus infection, among the population of certain regions [1, 4].

**Purpose of the study.** To determine the etiological structure of CH in children in the Andijan region, reflecting its patterns for the entire Ferghana Valley.

**Materials and methods of research:** A complete serological examination was carried out in 140 sick children from 1 to 14 years of age who were admitted to the Andijan City Children's Clinical Infectious Diseases Hospital during the year with a diagnosis of acute VH.

Blood for serological and biochemical studies was taken from hospitalized patients on the 1-4th day from the onset of jaundice, some of the sera were examined retrospectively (storage temperature -20 °C).

In all patients, anti-HAV IgM, HBsAg, HBc IgM were detected in the blood serum. VG markers were determined by ELISA with test systems and equipment of JSC "Diaplus" (Russia - Switzerland) and MPO "Diagnostic - Systems" (Russia, Nizhny Novgorod).

**Results and discussion.** In 112 (80%) of 140 children admitted with acute CH, HA was diagnosed against the background of various clinical forms of HBV infection (5.0% had HA against the background of HBsAg carriage, 2.7% had a combination of acute HA and HB and in 7.3% - HA against the background of chronic HB).

In 140 (0.8%) patients, different types of SH were combined with the detection of 2, 3, and even 4 markers. In 6 (0.8%) patients, known markers of SH were not detected. A thorough clinical, epidemiological and laboratory analysis in these cases excluded cytomegalovirus infection, Epstein-Barr infection and yersiniosis. Apparently, these patients still have well-studied etiological forms of VH.

Thus, due to the purposeful use of specific diagnostic methods (ELISA), it is possible to reliably determine the etiological structure of AVH, which differs from that established on the basis of clinical and epidemiological methods, with the registration of only HA and HB.

Children from 1 to 3 years of age predominate among patients with GA. With age, the frequency of detection of HA decreases. When studying the proportion of GA in combination with various types of HBV infection, almost the same dependence on the age of patients was noted as in GA.

VH with a parenteral transmission mechanism - HB was most often recorded in children under 3 years of age, including the first year of life (unlike GA). With age, the frequency of these forms decreased. The same pattern was noted in the incidence of mixed forms of VH and VH of unknown etiology.

When studying the etiological structure of SH in patients, depending on gender, the predominance of boys was noted. Among patients with hepatitis A, the number of boys and girls is approximately the same.

Hepatitis A was diagnosed with a high frequency in the 1st quarter, in the 2nd and 3rd quarters the incidence was less and increased sharply in the 4th quarter. The combination of GA with various clinical variants of hepatitis B occurred almost evenly in the 1st and 2nd quarters, somewhat less frequently in the 3rd quarter. Most often at 4.

**Conclusions:** Serological examination of all children with viral hepatitis using ELISA significantly changes the idea of the etiological structure of this disease, based on the results of generally accepted clinical and epidemiological methods. In sick children with mixed infection, 2-3 and even 4 markers of different etiological forms of viral hepatitis were identified. In patients with undetected markers of viral hepatitis, it is assumed that there are still little studied forms of hepatitis B.

### **Bibliography:**

1. I.V. Shahgildyan et al. "Modern epidemiological features of hepatitis A and the effectiveness of universal mass vaccination among children." Questions of modern pediatrics 2010.-№3 - C-131-35.
2. M. I. Mikhailov et al. "Innate immunity parameters in individuals from groups at high risk of parenteral infection with hepatitis B and C viruses." Medical news. - 2011. - No. 5. - S. 48-50.
3. M.O. Favorov et al. "Experience of Santinel surveillance and prevention of viral hepatitis" 2014.
4. M.K. Mamedov et al. "Immunocompromising individuals from groups at high risk of parenteral infection with hepatitis B and C viruses: Mechanisms of

formation and clinical and pathogenetic significance". Journal of Infectology. - 2012 .- T. 4. (No. 1) - P. 19-22.