

**INFECTIOUS MONONUCLEOSIS: CLINICAL AND LABORATORY INSIGHTS  
FROM THE SAMARKAND REGION**

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**ANNOTATION:** Infectious mononucleosis is a widespread disease most often caused by the herpes virus Epstein-Barr (EBV), affecting 80-90% of the population. With timely and accurate diagnosis of infectious mononucleosis, the effectiveness of treatment of infected patients is manifested by a decrease in the duration of fever, the severity of proliferative syndrome in the lymph nodes, and a more rapid cessation of the cytolysis process.

**Key words:** atypical mononuclear cells, children, Epstein-Barr virus (EBV), infectious mononucleosis.

**Introduction:** At present, infectious diseases occupy a dominant place in human pathology and, according to WHO forecasts, in the 21st century the role of infections in the structure of general morbidity will increase. The coming century is the century of viral infections, and the herpes family of viruses deserves special attention.

According to WHO, we are currently talking about a pandemic of herpesvirus infections. From a practical point of view, infectious mononucleosis deserves special attention among all herpes infections. In childhood, this disease is widespread and, in addition, it is known that after clinical recovery, a long-term persistent virus remains, which can lead to the formation of immunodeficiency. There is one cause of infectious mononucleosis - the Epstein-Barr virus.

**Objective of the study:** To study the clinical features of Epstein-Barr infectious mononucleosis of viral etiology in children of the Samarkand region.

**Methods and materials of the study:** Children aged 3 to 10 years with a laboratory-confirmed diagnosis of infectious mononucleosis were treated in an infectious hospital. All patients underwent standard laboratory tests. In all patients, involvement in Epstein-Barr disease was confirmed by the polymerase chain reaction method.

**Results of the study:** Treatment was carried out in 21 children, where there was a predominance of children aged 3 to 7 years (57.1%). Before admission, the children received treatment from ENT specialists with the diagnosis of "Tonsillitis". Atypical mononuclear cells were detected in 76.2% of patients. PCR in the blood serum gave a positive result in all. In 76.2% of patients, a moderate form of the disease was noted. In our study, all diseases are children from 3 to 10 years of age: from 3 to 7 years (preschool) accounted for 57.1%, and older (7-9 years) 42.1% and in this group there was a predominance of boys (66.7%) over girls (33.3%). The ratio of urban and rural patients was as follows (52.4: 47.6%), all patients underwent standard examinations: general blood and urine tests, feces. All patients were confirmed to have Epstein-Barr disease by polymerase chain reaction. When determining the severity, a predominance of patients with moderate disease severity was noted (76.2%). The

examined patients had complaints of difficulty in nasal breathing (85.7%), sore throat (90.5%), malaise (76.2%), headache (85.7%), less often cough (28.6%), parents noted sweating of the body (71.4%). All had chills with an increase even before admission to the hospital. High fever (38-40%) was observed in 4 (19%), moderate febrile in 7 (33.3%) and febrile (47.7%) was observed in 10 children. The fever was of the wrong type and lasted from 8 to 11 days. Patients were mainly admitted in the second week of the disease and were observed and treated by ENT doctors. When examining the pharynx, all showed an infection, with catarrhal tonsillitis in 52.4% of cases, follicular tonsillitis in 28.6% and lacunar tonsillitis in 19%, and the changes were bilateral.

Lymph nodes on palpation were the size of a small pea to a walnut, mobile, sensitive, elastic consistency, the skin above them was not changed. All patients we observed had bilateral enlargement of lymph nodes. The following enlargement of lymph nodes was noted: only cervical lymph nodes, up to the size of a walnut, were in 8 patients, simultaneous enlargement of the supramaxillary and inguinal was in two patients, submandibular and cervical were in 11 patients.

Since patients were admitted more often in the second week of the disease, hepatosplenomegaly was noted in most patients. Hepatomegaly was established in 85.7% of cases. The liver protruded from under the edge of the costal arch up to 4 cm (14.2%), and in the rest up to 2-3 cm, sensitive, medium density. Splenomegaly was determined in 57.1% of cases, while in 4-year-old children the spleen was palpable within 4 cm. The skin of patients is pale, clean only in two (9.5%) was a maculopapular rash found, occupying the body and limbs on an unchanged background. Non-specific laboratory diagnostics include a thorough study of the blood composition. Thus, according to our data, the level of leukocytes was as follows: from 6.0 to 10.0, detected in 7 (33.3%), from 11.0 to 15.0 - in 6 (28.6%), from 15.0-25.0 - in 8 (36.1%). Characteristic of infectious mononucleosis, atypical mononuclear cells were detected in 76.2% of lymphocytes, noted in all patients. In 14.3% of patients, a normal number of erythrocytes and normal hemoglobin levels were detected, the rest were diagnosed with grade 1 anemia. PCR serum tests yielded positive results in all patients. Blood biochemical tests such as AST, ALT were elevated in all patients with hepatomegaly, but the bilirubin level and thymol test values were within normal limits.

**Conclusions:** Thus, the data showed that infectious mononucleosis in children occurs more often in a moderate form. Since patients were admitted more often in the second week of the disease, hepatosplenomegaly was noted in most patients. Hepatomegaly was established in 85.7% of cases. Characteristic of infectious mononucleosis, atypical mononucleosis was detected in 76.2% of lymphocytes, and was noted in all patients.

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