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PECULIARITIES OF CLINICAL-LABORATORY DIAGNOSTICS OF INFECTIOUS MONONUCLEOSIS IN CHILDREN

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**Introduction.** Herpesvirus infections remain an actual problem of infectious diseases. In the opinion of the WHO, currently it is a pandemic of herpesvirus infections: up to 90% of the adult and infant population of the planet are infected with herpesviruses, with 50% of them mention the manifestation, recurrent course of diseases caused by them. Infectious mononucleosis (IM) is the most typical clinical manifestation of herpesvirus infections.

**Aim:** to analyze the features of clinical and laboratory diagnostics of IM in children.

**Materials and methods.** The history of the diseases of 60 patients (random sampling) hospitalized in the infectious department of the Regional Infectious Children's Clinical Hospital during 2018 has been studied. The age of children was 2 to 16 years old, boys were 34 (56.7%), girls ― 26 (43.3%). Diagnosed with IM with a typical course of mild degree in 4 (6.6%) patients with moderate severity - 49 (81.7%), severe ― 7 (11.7%). Acute course occurred in 43 (71.7%) patients, protracted ― 11 (18.3%), relapse ― 6 (10%). The revealed complications: thrombocytopenic purpura in 1 patient ― (1.7%), convulsive syndrome ― 2 (3.3%).

**Results.** During the hospitalization the following complaints were found: increase of cervical lymph nodes ― 58 (96.6%) patients; pain in the throat during swallowing ― 51 (85%), difficulty in nasal breathing ― 49 (81.6%), febrile fever, for at least 3 days ― 53 (88.3%), exanthema in the skin ― 7 (11.6%); sluggishness, drowsiness, general weakness ― 60 (100%) patients.

Peculiarities of the epidemic history: contact with ill peers was 29 (48.3%) children, family members were ill with acute viral diseases ― 16 (26.6%), denied contact with patients ― 15 (25%).

During the physical examination, attention was drawn to: enlarged painful palpation of the group of anterior and posterior cervical lymph nodes to 1.8±0.19 cm ― 54 (90%) patients, hyperemia of the posterior wall of the oropharynx, enlarged tonsils with a bite ― 51 (85%), the liver protruded from under the edge of the right edicular are 1.6±0,11 cm ― 42 (70%), the spleen increased 1,21±0,17 cm ― 39 (65%).

In the clinical analysis of blood during the first or second week of the disease, the following changes were observed: leukocytosis <15\*109 ― 44 (73.3%), leukocytosis > 15\*109 ― 7 (11.6%), leukocyte formula displacement to the left ― 19 (31.6%), lymphomonocytosis was recorded in 41 patients (68.3%), atypical mononuclear to 10% ― 27 (45%), atypical mononuclear more than 10-20% ― 14 (23.3%), anemia ― 47 (78.3%). A direct correlation between the number of mononuclear cells and the severity of the disease is noted, and the peak of the appearance of virocytes in most patients was noted at 14±0.12 days of the disease. The most common changes in the biochemical analysis of blood, testified to the development of the syndrome of cytology and considered as one of the main manifestations of the disease. Thus, an increase in ALT activity was recorded in 21 patients (35%), averaging 171.9±29 unit/l. The increase in AST activity was found in 19 children (31.6%), averaging 112.3±16.7 unit/l. The elevated level of bilirubin was not detected.

Specific diagnosis included a positive Paul-Bunnel reaction to detect heterophilic antibodies, which was detected only in 22 (36.6%) children. VCA (viral capsid) Ig M was detected in 60 (100%) patients, VCA Ig G ― 5 (8.3%), and antibodies to the EA complex ― 12 (20%) by immunoassay analysis. DNA polymorphism of the Epstein-Barr virus in blood was detected in 58 (96.6%) patients with polymerase chain reaction.

**Conclusion.** IM has a bright clinical symptomatology, but without specific features. Changes in the clinical analysis of blood are associated with the appearance of virocytes in 43 (71.6%) children, but also characteristic of parotitis, viral hepatitis. Reactions detecting heterophilic antibodies were positive in 22 (36.6%) patients, but especially in children under 3 years of age, there may be false negative results. Therefore, a key to success can be only a comprehensive routine evaluation of all data from clinical examination to the results of detection of viral antigens and antibodies to them in the blood of patients.