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**FEATURES OF THE COURSE OF SERIOUS MENINGITIS OF**

**ENTEROVIRAL ETIOLOGY IN CHILDREN**

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**Abstract:** A retrospective analysis of 113 patients who were divided into three clinical groups was performed. The first clinical group included 15 patients who were hospitalized on the first day of the disease, the second and third were 98 children hospitalized at a later date. The groups were compared by clinical and laboratory parameters.

**Key words**: serous, enterovirus, myx infection, herpes virus, lymphocytic.

Enterovirus infection has a leading place among viral diseases in children of all ages worldwide [1, p. 513]. Recently, in Ukraine there is a tendency to increase the incidence of enterovirus infection [2, p. 241]. According to the Public Health Center of Ukraine, over 1,5 thousand cases of enterovirus infection have been registered in 2019, of which almost 75% are children of preschool and school age.

**Aim.** Тo analyze features of clinic and diagnostics of enterovirus meningitis in children.

**Materials and methods**. A retrospective analysis of 113 case histories of patients hospitalized in the infectious ward of the Regional Clinical Pediatric Infectious Disease Hospital during 2019 was diagnosed with serous meningitis. Among patients, boys predominated - 67 (59.2%), age of children ranged from 2 to 5 years – 54 (47.7%), from 6 to 10 years - 37 (32.9%), from 11 to 17 years - 22 (19.4%).The majority were hospitalized during the epidemic rise of enterovirus infection, namely in August - October months - 96 (84.9%) patients. At collection of epidemic history it was found out: they had contact with sick children for acute respiratory viral infection (SARS) in kindergarten, school - 41 (36,2%), fell ill after rest in summer children's camp - 29 (25,6%), one of the family members - 26 (23.2%), violation of personal hygiene - 13 (11.5%), unspecified epidemic history - 4 (3.5%).

**Research results**. Depending on the time of hospitalization, the children were divided into three groups: the first group of children was hospitalized for 1 - 2 days from the onset of the disease - 15 (13,27%), the second group for 3 - 5 days – 65 (57,5%), and the third The group consisted of children who were hospitalized later than 6 days - 33 (29.2%). Complaints in children of the first group were: headache - 11 (73.3%), repeated vomiting - 13 (86.6%), fever in the range from 37.7º to 38.8º - 12 (80.1%) , catarrhal manifestations – 7 (46,6%). Patients of the second and third groups in the first days of the disease were accompanied by lesions of the gastrointestinal tract in the form of nausea - 54 (55,1%), vomiting - 43 (43,8%), abdominal pain, more in the left half - 61 (62,2%), watery diarrhea up to 5 once a day - 32 (32,6%), 5 to 10 - 21 (21,4%), more than 10 - 12 (12,4%) children, acute upper respiratory catarrh in the form of rhinopharyngitis: nasal congestion - 21 (21,4%), rhinorrhea - 19 (19,3% ), hyperemia of the back wall of the pharynx - 29 (29,5%), dry cough - 11 (11,2%); herpangins: moderate hyperemia of the mucous membranes of the soft palate and back of the pharynx - 15 (15,3%), the presence of papules with a diameter of 1 - 2 mm on the palatine braces and tonsils - 31 (31,6%), moderate sore throat - 24 (24,4%). Toxic syndrome was observed in all children in this group.

Against the background of the second wave of increase in temperature response, the general condition worsened, there was vomiting, headache, hyperesthesia. In the admission ward, 95 (84,1%) children had positive meningeal symptoms, and 18 (15,9%) were suspicious. All children were carried out a lumbar puncture with subsequent analysis of liquor. By visual examination in all children, the CSF was clear, colorless, with high blood pressure, and lymphocyte cell count. The level of protein in the range of 0.17-0.33 g/l were diagnosed in all patients. For other indicators of CSF, significant differences were revealed: the reaction Pandi subposition "+" in all patients, the level of chlorides should not exceed 120 mmol/l, the rate of glucose of CSF was in the range of 2.0-3.0 mmol/L. In all cases were diagnosed with serous meningitis.

Etiology of serous meningitis was installed on the basis of the detection in CSF RNA and DNA viruses by PCR. The study of it is a PCR – 15 (13,2%) – discovered RNA enterovirus, in 89 (78,7%) diagnosed with mixed serous meningitis to enteroviruses and cytomegalovirus, or herpesviruses sixth type, unidentified etiology - 9 (7,9% ). After the treatment children observed a decrease in clinical manifestations of serous meningitis, namely for 2 hours, the disappearance of headache – 89 (78.7%) for 2 – 4 days the normalization of temperature of body – 91 (80.5%), the cessation of vomiting – 103 (91,1%). But in 13 (11.5%) on the 8th day from the start of treatment remained pronounced intoxication syndrome – 11 (84,6%), headache – 9 (69,2%), febrile body temperature – 10 (76,9%), severe General condition of the children. More severe serous meningitis in these children explained the presence of mixed infection.

**Conclusion.** There is a significant increase in the incidence of enterovirus infection among children, which is particularly important in the period of epidemic rise of August-October months. In the presence of background pathology like infection herpesvirus infection in children the serous meningitis has a more prolonged duration. The most informative method for confirmation of the etiology of serous meningitis is PRL. The polymorphism of clinical manifestations of enterovirus infection requires additional vigilance on the part of doctors and the differential diagnosis of infectious and non-communicable diseases.

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