HERPESVIRUSES. CYTOMEGALOVIRUS. HERPES SIMPLEX VIRUSES OF THE 1ST AND 2ND TYPE

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https://doi.org/10.5281/zenodo.10203243

Abstract. *In recent years, herpesviruses (from Greek) have become increasingly important in infectious pathology. herpes — creeping), in particular cytomegalovirus. The attention that virologists and clinicians have been paying to these human viral diseases over the past 25 years is due to their significant epidemiological role and social significance in the modern world.*

Keywords: *polyhydramnios, herpesvirus, virologists, virus, herpes.*

According to literature data, more than 90% are infected with herpes simplex virus type 1 (HSV-1), and about 15% of the world's population are infected with herpes simplex virus type 2 (HSV-2). Herpes simplex viruses of the 1st and 2nd type belong to the subfamily of a-herpesviruses (alfa herpes virinae) of the herpesvirus family (herpes viridae). HSV-1 is almost identical HSV-2. The difference between them lies in the structure of 2 surface proteins — glycoproteins (gC, gG).

Cytomegalovirus (Eng. CMV, cytomegalovirus, from the Greek. κύτος — cell and μέγας — large) is a genus of viruses of the herpesvirus group (Herpesvirus). For human viruses, the abbreviation HCMV, or "human herpesvirus type 5"(HHV-5) is usually used. An acute form of infection (for example, after sexual infection or after blood transfusion) occurs after the incubation period 20-60 days, proceeds according to the type of cold with sore throat. The nature and severity of clinical manifestations CMV infections depend on the state of immunity. Under the influence of cytomegalovirus, normal cells increase in size to 25-40 microns (the term "cytomegaly" means "giant cell"). Eosinophilic inclusions (stained with acid dyes) appear in the nuclei of cells. The nucleus takes the form of an "owl's eye" — this is a pathognomonic (characteristic) sign of CMV infection.

With cytomegaly, there is a high risk of:

— termination of pregnancy;
— spontaneous miscarriage;
— non-developing pregnancy;
— antenatal fetal death;
— anomalies of development;
— polyhydramnios.

Ultrasound markers of fetal infection: microcephaly, calcifications in the brain, ventriculomegaly, intestinal hyperechogenicity, heart defects, kidney agenesis.

Here is an observation from practice.

The boy M., was born from the 3rd pregnancy (1st - medical abortion, 2nd - frozen fetus), which proceeded with toxicosis of the first half, against the background of chronic herpes infection in the mother, with monthly exacerbations of herpes labials. Labor I, urgent, birth weight 3100 g, height — 50 cm. He screamed immediately, he was attached to his chest in the delivery room.

BCG was vaccinated in the maternity hospital. On the 2nd day in the hospital, the doctor listened to the child heart murmur, examination after discharge is recommended. He was discharged from the hospital on the 4th day with conjugation jaundice that persisted up to 3 months of life. The mother drew attention to the rapid breathing of the child from the first days of life, which was associated with "congenital narrowness of the respiratory tract." He was breastfed for up to 6 months, gained enough weight: for 1 month — 800 g, subsequently — 600-700 g monthly. But after 6 months I stopped gaining weight, shortness of breath appeared. At 9 months, he suffered pneumonia, then obstructive bronchitis, for which he was treated in a hospital, where an active stage of persistent CMV infection was detected, for which the child received viferon, proteflazide, acyclovir for a month. At the age of 10 months, the child's condition deteriorated sharply, shortness of breath increased, the temperature rose to 37.8 ° C, a cough appeared. He was hospitalized in the pediatric pulmonology department. Upon admission, the child's condition is severe due to circulatory insufficiency, intoxication and hypotrophy of the II degree (24% body weight deficit). Dyspnea of a mixed nature is expressed up to 66/min, heart rate — 144/min, t 37.0 °C. There was no visible swelling. The skin is pale, perioral cyanosis is pronounced. The large fontanel 1.0 1.0 cm, at the level of the skull bones, is not tense. Percussion over the lungs is a boxy shade of sound, auscultation — hard breathing, single dry wheezes on both sides. The boundaries of the relative dullness of the heart are expanded to the left. The heart tones are rhythmic, an unexpressed systolic noise was heard above the atrial region, conducted into the axillary region. The abdomen is soft, the liver is 3 cm below the hypochondrium, the spleen is not enlarged. The pulse on the femoral arteries is of satisfactory properties.

There are no peripheral edema. The stool is regular, yellow, mushy, without impurities. Urinates freely, urine is light. Analysis. blood: erythrocytes — 3.9 T / l, hemoglobin — 122 g / l, Color Index — 0.9, ESR 6 mm / h. Urine analysis without pathology. On chest radiography: pulmonary fields of normal transparency. The pulmonary pattern is enhanced by the vascular component. The sinuses are free. The left border of the heart is shifted to the left. On the ECG:
the rhythm is sinus, regular, 136 beats /min, signs of left ventricular hypertrophy, moderate violations of repolarization processes. On echocardiography: perimembranous defect of the interventricular septum, pronounced bulboventricular fold. Mitral valve stenosis (DP 6.0 mmHg). Enlargement of the left heart. The diameter of the trunk of the pulmonary artery is 1.8 cm; the pressure gradient is 12.0 mm Hg.

Signs of severe pulmonary hypertension. Ultrasound of the kidneys, bladder: echo-signs of a single, left kidney. Agenesis of the right kidney. Ultrasound of the abdominal cavity: echo-signs of moderate enlargement of the liver.

He was consulted by a cardiac surgeon, to clarify the topic of the defect and treatment, a transfer to cardiac surgery department. In the pulmonology department, he received treatment: pulmicort through a nebulizer, viferon-1, proteflazide, biogaya, cardonate, galstena. Against the background of treatment, the child's condition remained stable and severe. Shortness of breath of a mixed nature persisted at a load of up to 70 / min, heart rate — 136-140/ min, subfebrile temperature. For further examination and treatment, he was transferred to the cardiac surgery department of the Institute of Emergency and Reconstructive Surgery, where the child underwent echocardiographic examination, probing of the heart cavities, angiocardiography.

Additional laboratory data: total serum protein — 77.4 g/l, glucose — 4.0 mmol/l, residual nitrogen — 2.9 mmol/l, urea — 6.3 mmol/l, creatinine - 0.065 mmol/l,

bilirubin - 12.0 mmol/l, ALT — 0.2 units, AST — 0.16 units., Na — 151.0 mmol/l, K — 4.8 mmol/l, Ca —2.44 mmol/l, hematocrit — 42. PCR: DNA to HCV positive, to CMV positive. Blood type A (II) Rh+. Urinalysis is normal. On echocardiography: double discharge of the main vessels from the right ventricle. Large podaortic ventricular septal defect (LVD) of 1.4 cm, mainly left-right discharge. The pressure gradient of LV/pancreas is 14 mm Hg. The left sections are enlarged, BWW is 40.0 ml, PV is 71%. The pressure in the LA is 66.0 mm Hg, LLC 0.3 cm. The only two-headed papillary muscle. Coronary arteries usually depart. During probing of the heart cavities and angiocardiography, a large DMF with a left-right discharge, high pulmonary hypertension with normal resistance of the pulmonary vessels were revealed. A congenital heart defect was diagnosed: double divergence of the main vessels from the right ventricle (DOMS), ventricular septal defect, high pulmonary hypertension, H2a. Concomitant diagnosis: perinatal CNS lesion, recovery period, hypostasis, rickets of the 2nd art., subacute course. Persistent cytomegalovirus infection, replicative phase. Agenesis of the right kidney. Hernia of the white line of the abdomen. I received sulfaperazone, netromycin, lacidophil, furosemide, digoxin, captopril, veroshpiron, ambroxol, acyclovir, erius, nurofen in the department.He was discharged in a satisfactory condition for outpatient follow-up and under the dispensary supervision of a pediatrician, cardiologist, pulmonologist. It is recommended to continue treatment with captopril, digoxin, veroshpiron and cytobine (human anti-cytomegalovirus immunoglobulin). Observation of the child in the catamnesis — 3 months and six months after the operation. Over the past time, he suffered a single acute respiratory infection and bronchitis without complications. Physical and psychomotor development is satisfactory. Thus, timely diagnosis and treatment of persistent infections in pregnant women and children helps to avoid serious complications and prevent exacerbation of chronic infection.

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