THE UNUSUAL CASE OF ADENOVIRUS INFECTION IN CHILD

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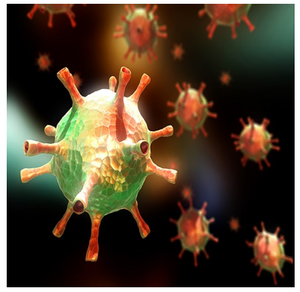


Adenovirus infection is one of most often disease among ARVI and its frequency is from 10 to 34% according to different data sources. Up to 5-year-old age practically all children have adenovirus infection at least once. A characteristic feature of this infection is propensity to recurrence, its chronic course and persistence. Ability to latent persistence allows adenoviruses to avoid of the interaction with immune system and reactivate under favorable conditions.

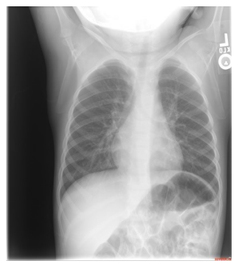
Depending on a leading syndrome the disease there are some clinical forms: catarrh of the upper respiratory tract, pharyngoconjunctival fever, pharyngotonsillitis, mesenteric lymphadenitis, keratoconjunctivitis, pneumonia, acute diarrhea. Fatal outcome is rare. More serious infection observes in immunocompromised children. In patients with infringements of immune functions the rate of death from adenovirus infection can be 50-60%. After transplantation of a bone brain 2-18% of children have adenovirus infection which often proceeds with serious complications.

WE PRESENT A REPORT OF A CHILD WITH GENERALIZED FORM OF ADENOVIRUS INFECTION AGAINST THE BACKGROUND OF IMMUNOCOMPROMISED CONDITION.

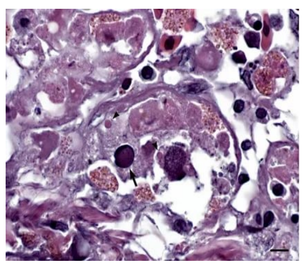
ANAMNESIS OF THE DISEASE AND OBJECTIVE STATUS: A 5-month-old boy was admitted to the Children's infection clinical hospital with 6-days of fever and cough. On admission a patient's condition was poor at the cost of intoxication and respiratory distress. The child was without consciousness. Weight was 6470 g, temperature-38,7 ^{0}C. An integument was pale, pure with cyanosis tinge; skins turgor was lowered; mucous membranes were bright and dry. Convulsive twitching of mimic muscles was observed, the right foot is marked. Peripheral lymph nodes were not increased. Big vertex was at the level of bones of a skull and it was pulsing. The respiratory rate was 32-46 per minute; at the auscultation the breath was bronchial with dry rales. Tones of heart were rhythmical, considerably muffled, systolic murmur at the apex; the heart rate was 202 per minute. The heart rate and pulse on a radial artery were not defined. The liver was enlarged on 2 cm; the spleen was not palpated.

OBSTETRICAL ANAMNESIS: The child was from 4-th pregnancy, 4-th labor, weight at birth was 3250 g, height was 53 cm. Childbirth was at home in terms of 40 weeks of pregnancy. An alcoholic phetopathy, hypotension syndrome and perinatal encephalopathy were diagnosed in the postnatal period; the child was under supervision by a neurologist. Physical and mental growth and development of this patient conformed to age.

LABORATORY STUDIES on admission included: in analysis of blood of changes it is not revealed; in the general analysis of urine - proteinuria (2.6 g /l), bacteriuria (++); in the biochemical analysis of blood, urea (11.4 mmol/l), creatinine (93 mmol/l), potassium (7 mmol/l) above normal and dysproteinemia (α_1-4,7 %, α_2-12,2 %, β-10,7 %, γ-12,4 %). The investigation of acid-base balance of blood showed metabolic acidosis; the laboratory findings of hemostasis showed hypocoagulation. Analysis of cerebrospinal fluid (CSF) did not show pathological changes. Microbiologic investigation of the CSF, blood and urine were sterile. Study of nasopharyngeal specimens to find the antigens of respiratory viruses (influenza A and B, parainfluenza, adenovirus, RS-virus) by means of immunofluorescence reaction (IFR) had negative results. The X-ray examination of a thorax showed moderately emphysematous lung fields, sinuses were increased in the medial zones at the expense of perivascular infiltration. On the electrocardiogram was sinus tachycardia, vertical position electrical axis, changes in a myocardium left ventricle (diastolic overload). An ultrasonic scanning of the abdomen showed hepatomegaly, reactive changes of vessels of a liver and spleen, diffuse changes in a parenchyma of both kidneys.



The patient received ***INTENSIVE THERAPY*** (infusion therapy, anticonvulsive and antihypertensive preparations, glucocorticoid hormones, cardiotonic and antibiotic therapy). But a condition of the patient became worse, a brain edema developed, multiple organ insufficiency and signs of disseminated intravascular coagulopathy progressed. On the next day patients vital signs were destabilized, the death was stated.



The diagnosis of generalized adenovirus infection was determined ***POSTHUMOUSLY***. Morphological signs of lesions of lungs, thin and thick intestines were found out on the autopsy. The investigation of biopsy material from these organs by immunofluorescence reaction was positive to adenovirus. The generalized adenovirus infection was processing with complication as the hemorrhagic syndrome (small hemorrhages in an epicardium, a pleura, a capsule of thymus, an endocardium, a medulla stratum of adrenal glands, massive hemorrhages in the field of frontal lobes of a brain) against the background of lymphohypoplastic diathesis (weight thymus was 40 g (N-12 g), follicular-medullar hyperplasia lymphoid tissue).

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