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A CLINICAL CASE OF SUBACUTE SCLEROSING PANENCEPHALITIS

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Introduction:A clinical case of subacute sclerosing panencephalitis in a 3-year-old child is presented. The diagnosis was confirmed by clinical symptoms, results of magnetic resonance imaging of the brain, electroencephalography, blood and cerebrospinal fluid studies. MRI of the brain shows signs of diffuse damage to the white matter of the cerebral hemispheres, basal nuclei, varolian bridge, middle legs of the cerebellum with cytotoxic edema. It should be noted that computed tomography did not reveal any changes during the year from the beginning of clinical manifestations. Electroencephalography revealed periodic pathological activity in the form of high-amplitude tetta waves, rarely delta waves, mainly on the left. The titers of antibodies to the measles virus are elevated in the cerebrospinal fluid. The detection of IgM antibodies does not play a role in diagnostic studies, since an increase in their titer is noted in less than 10% of cases. The introduction of measles vaccination reduces the incidence of sclerosing panencephalitis by 90%.

Keywords: Sclerosing panencephalitis, child, magnetic resonance imaging, brain, electroencephalography, cerebrospinal fluid, anti-wound vaccination.

A clinical case of subacute sclerosing panencephalitis in a child U.R., 3 years old. They applied independently to the Andijan regional children's multidisciplinary Medical Center with complaints of constant twitching of the right limbs, after an emergency examination, the patient was hospitalized in the department of neurology. Diagnosis upon admission: Focal epilepsy. Subacute encephalitis is not excluded. During the initial examination, by lina's complaints are headache pain in the frontal region, pain in the right half of the upper limb, unsteadiness of gait, frequent stumbling, rolling eyes up, twitching in the right limbs, general malaise, weakness, lethargy. From the medical history of the disease: according to the grandmother, during daytime sleep, the child had rolling of the eyes upwards, blueness of the nasolabial triangle, convulsions with a duration of up to a minute, which were stopped independently (the grandmother associated the above complaints with the fact that 3 weeks ago the patient was injured - fell headfirst). On the same day at night, at about 23:40, repeated attacks are noted, with a duration of up to 2 minutes, they were also stopped on their own. After the last convulsions, they went to the hospital, where they were hospitalized. Seizures were first reported 6 months ago against the background of acute respiratory viral infections, with an increase in body temperature to 38-39 C. In this case, the child had no obvious signs of measles, moreover, he was vac cinated according to the calendar. According to the literature, subacute sclerosing panencephalitis is realized in children who have had measles at an early age (up to a year), who have suffered from measles (erased form) and even in cases of vaccination. This case demonstrates exactly the variant of panencephalitis in a measles-vaccinated child. From the anamnesis of life: from 1 pregnancy, 1 birth, which took place without pathology. The birth weight was 3700g, height- 52cm. Vaccinated according to the calendar, did not have measles (describes an episode of viral infection 6 months before the onset of symptoms). The heredity of epilepsy is not burdened.

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Neurological status upon admission: The general condition is moderate to severe due to convulsive syndrome - clonic twitching of the right extremities, more hands, coordination disorders, sensitivity, more in the right extremities. The child is conscious. He reacts to the examination with anxiety, attention is unstable, restless, often falls back, answers questions in monosyllables. The head has a regular shape, the Head circumference is 52 cm (corresponds to the central table). The face is symmetrical. Cranial Nerves: The eye slits are symmetrical. He keeps an eye on the objects. The pupils are the same, the photoreaction is alive, D=S. The language of the average lines. Trigeminal points are painless. Muscle tone is reduced on the right. Muscle strength is reduced on the right. Tendon reflexes are triggered, D>S. There are no meningeal symptoms. Gait is broken - unsteadiness of gait. Romberg's pose is unstable. The finger-nasal test is performed with a passing pattern. Speech at the level of short words (a speech disorder that appeared with the symptoms of this disease).

Somatic status: Does not have a fever. The skin is of ordinary color. Breathing through the nose is free. Breathing rhythm: rhythmic. Auscultation in the lungs is vesicular respiration. There are no wheezes. The heart tones are clear, the rhythm is correct. The tongue is wet. The abdomen is soft and painless during palpation. Urination is free. The chair is decorated.

During hospitalization, the patient had repeated seizures in the form of myoclonic–astatic seizures, limb cloning on the right, in dynamics with a transition to the left side, impaired consciousness, speech, gait. The following were recommended: lumbar puncture, blood test for measles antibodies immunoglobulin M and G, MRI of the brain in dynamics, EEG video monitoring. In the treatment, pulse therapy with metipred was used, finlepsin and lamictal were obtained from anticonvulsants. But, regardless despite antiepileptic and hormone therapy, the child's condition progressively worsened in the form of an increase in neurological symptoms – impaired consciousness to copulation, increased frequency of seizures with modifications, pseudobulbar disorders, increased muscle tone in the extremities, signs of increased brain atrophy on MRI, slowing of low-amplitude bioelectric activity on EEG, in addition, the patient was prescribed B vitamins in treatment, immunosuppression therapy.

Taking into account clinical data, data from radiological and electrophysiological studies, as well as positive results for antibodies against measles (IgM and IgG), the patient was diagnosed with subacute sclerosing panencephalitis due to a viral infection. An autoimmune condition is possible. Partial epilepsy.

In dynamics, the condition worsens, neurological symptoms increase: impaired consciousness to sopor (according to the Glasgow coma scale of 12-13 points), a posture of decortication rigidity appears, hyperkinesis, contractures of the hands, ankle joints, pseudobulbar disorders, protein and energy deficiency of 2-3 degrees. On an MRI scan of the brain, with a difference of 1 month, each time, in comparison with the previous ones, there was a negative trend. The same negative dynamics was observed on the EEG with a difference of one month:

EEG monitoring No. 1: Pathological EEG. The bioelectric activity of the brain is preserved.In the sleep EEG, sleep stages and sleep transits are not differentiated. In a dream, pathological activity is recorded in the form of high-amplitude tetta-delta waves, mainly on the left. No seizures were recorded during recording.

EEG monitoring No. 2: Pathological EEG. The bioelectric activity of the brain is preserved.In the sleep EEG, the stages of sleep and sleep transits are poorly differentiated. In wakefulness and during sleep, epileptiform activity is recorded in the form of peaks in the frontal-central temporal leads on

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the left, and asymmetries are also periodically noted, with a predominance on the left. During the recording of wakefulness, seizures were recorded, in the form of waving the right hand backwards, for a second, repeated every 10 seconds;

EEG monitoring No. 3: Pathological EEG. The bioelectric activity of the brain is disorganized. In the sleep EEG, sleep stages and sleep transits are not differentiated. Low-amplitude deceleration in the form of low-amplitude delta-tetta waves on the left is constantly recorded. Artifacts from the movement are recorded. Epileptiform activity and seizures were not recorded during recording.

Discussion. This example shows the difficulties in carrying out differential diagnosis of paroxysmal conditions, such as partial clonic epilepsy (epilepsia partials continua) and other conditions that can cause seizures. In this case, when clonic seizures occurred in the right extremities, which were quite acute, the first assumption was the presence of encephalitis, in connection with which the patient underwent a lumbar puncture. However, the study of cerebrospinal fluid did not establish pathognomonic signs of encephalitis of viral etiology in the form of an increase protein levels, cytosis. Further progression of neurological symptoms, with asymmetry of both clinical signs and both EEG and radiological studies indicating progressive atrophy of the brain substance on the left, accompanied by asymmetry of epileptic activity from the left leads, did not exclude the development of Rassmussen's encephalitis. This assumption contributed to the decision to continue hormone therapy, which in this case it was ineffective. Ongoing clonic seizures from the right extremities, accompanied by a post-onset change (decrease) sensitivities led to the decision to enhance anticonvulsant therapy by prescribing benzodiazepines. However, the administration of benzodiazepines did not lead to the desired effect (reduction of seizures), the neurological status progressively worsened. The child progressively lost the skills of independent movement, then somnolence appeared before constipation, eating disorders, lack of reaction to examination. After receiving positive results for measles antibodies, as well as repeated analysis of electrographic phenomena and detection of asymmetric periodic high-amplitude activity, as well as progressive atrophy of the white matter of the brain, involving basal structures and the formation of a posture of decortication rigidity, led to the diagnosis: subacute sclerosing panencephalitis, and taking into account the positive result for antibodies to measles of IgM –measles etiology, possibly due to the persistence of the virus and reactivation, which led to a specific lesion of the brain substance.

Conclusion. The progressive deterioration of the patient's condition indicates an unfavorable outcome of the disease, which occurs no later than 2 years from the onset of the disease. At the moment, there are no effective treatment methods. Therefore, timely vaccination, treatment of measles and other vaccine–controlled infections is the prevention of subacute sclerosing panencephalitis. The reduction in the incidence of sclerosing panencephalitis has been achieved as a result of mass anticorrheal vaccination. Thus, the widespread introduction of immunization in developed countries has contributed to reducing the incidence of the disease by more than 90 % measles. Thus, in the world so far, out of 14 million deaths related to infections, about 3 million are caused by diseases that could have been prevented by vaccination. A factor determining the success of full vaccination coverage for children is an active recommendation from a doctor/health worker to get vaccinated.

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