

CLINICAL CASE OF HEMORRHAGIC FEVER WITH RENAL SYNDROME

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Hemorrhagic fever with renal syndrome (HFRS) is an acute viral zoonotic natural focal disease characterized by general intoxication with fever syndrome, hemorrhagic manifestations and renal damage. HFRS is a group of clinically similar diseases caused by a family of Hantaviridae from the order of Bunyavirales. Among 41 known orthohantaviruses, 4 species (Hantaan, Puumala, Seoul, Dobrava-Belgrad) are the most frequent pathogens of HFRS in Europe, Asia and Africa.

The first report on the incidence of HFRS in Belarus appeared in 1957, in subsequent years single cases of the disease were observed, in people after being in the forest.

In recent years there has been an increase in activity and expansion of the foci of this disease with the predominant circulation of Puumalaorthohantavirus. The reservoir of the causative agent is the mouse rodent. Infection in rodents proceeds for a long time and is asymptomatic. Infection of a person often occurs by air-dust (during cleaning, transportation of hay and straw and work with them on the farm). Transmission of the virus is also possible with contact with rodents or infected objects of the environment, as well as alimentary by the use of products that have been contaminated by rodents. Transmission of infection from person to person is not registered.

The incidence is characterized by apparent seasonality. Typical are two peak incidence of HFRS - spring-summer and autumn.

The majority of male patients (70 - 90%) are mostly infected with the most active age (from 15 to 50 years). The majority of authors, based on the leading syndrome of the disease - acute renal failure, suggested the following periods of the disease: initial (febrile), oliguric (renal and hemorrhagic manifestations), polyuria, convalescence (early - up to 2 months and late - up to 2-3 years) .

The variety of clinical manifestations in HFRS often complicates the differential diagnosis of the disease, which was the reason for this study.

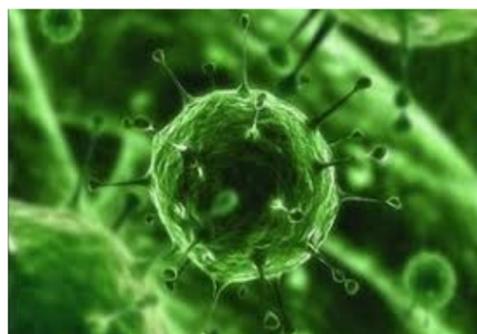
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ANAMNESIS OF THE DISEASE AND OBJECTIVE STATUS: A boy of 15 years old, a resident of the village who was treated in the City Children's Infectious Clinical Hospital of Minsk in August 2016. From an anamnesis: he fell ill with an increase in body temperature to 39°C, took antipyretic drug and continued working on the farm (cleansed cowshed). After 2 days, vomiting appeared up to 3-4 times a day, which then increased to 12-15 times a day, the fever persisted, the child was hospitalized. The examination revealed abdominal pain, leg muscles, scleral hemorrhages and eye conjunctiva, small-pointed, hemorrhagic rash on the face, upper body and arms, facial pastness.

LABORATORY STUDIES. In the blood analysis during the period of the disease were leukocytosis ($14.4-24 \times 10^9 / l$), neutrophilia with a stab (20-49%) shift to the left, thrombocytopenia ($104-70 \times 10^9 / l$) without an increase in the level of ESR (5-10 mm / h), a high level of urea (14-16.6 mmol /l) and creatinine (140-240 mmol /l), transaminase (mainly AST). In the general analysis of urine - proteinuria (0.8-1.68 g /l); ultrasound examination showed an increase in the linear size of the kidneys, moderate hepatosplenomegaly with diffuse changes in the parenchyma of these organs. The presence of anamnestic data (cleaning of the crib, male sex, age - 15 years), seasonality (August), acute onset of fever, expressed intoxication syndrome, hemorrhagic rash and signs of kidney damage (proteinuria, elevated levels of urea and creatinine in peripheral blood) allowed to presume a diagnosis of HFRS, which was confirmed by MFA (blood): antibodies (1:1024) were detected.



THERAPY. There is no ethiotropic therapy for this disease, it is suggested the use of ribavirin and pathogenetic therapy. Before the diagnosis, the boy was prescribed then - only pathogenetic, which contributed to the involution of clinical symptoms, the normalization of laboratory indicators.



Given the characteristic symptomatology of the disease, a mild course, the presence of all periods of the disease characteristic of the virus circulating in the European region, including in Belarus, the absence of complications after the infection, one can assume that the boy had a disease caused by Puumala orthohantavirus.

Thus, HFRS in the Republic of Belarus occurs in the children's population, proceeds with the typical clinical symptoms characteristic of the disease caused by the Puumala orthohantavirus virus, so practical doctors should be cautious about this disease.