

**TREATMENT, PREVENTION AND CONTROL MEASURES FOR
EPHEMERAL FEVER DISEASE IN CATTLE****Ali Saykanovich Mengliyev**

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Abstract. This article discusses the clinical signs of the disease, pathological changes, diagnosis, treatment and preventive measures, control and problems of ephemeral fever in cattle.

Key words: cattle, ephemera, fever, virus, blood-sucking fly, dissection, disinfection.

**МЕРЫ ЛЕЧЕНИЯ, ПРОФИЛАКТИКИ И КОНТРОЛЯ ЗАБОЛЕВАНИЯ
ЭФЕМЕРНОЙ ЛИХОРАДКОЙ КРУПНОГО РОГАТОГО СКОТА**

Аннотация. В данном состоянии рассматриваются клинические признаки заболеваний, патологические изменения, диагностика, лечение и профилактика, лечение и проблемы эфемерной лихорадки крупного рогатого скота.

Ключевые слова: крупный рогатый скот, эфемеры, кровососущие мухи, лихорадка, вирус, дезинсекция, дезинфекция.

Introduction. Ephemeral fever is an acute transmissible viral disease, mainly in cattle, characterized by short-term (from Greek ephemeral - short) fever, inflammation of the mucous membranes of the nose, mouth, red throat, eyes, muscle tension (stiffness, twitching) of the trunk and legs, difficulty moving and limping.

The disease is caused by the lymphotropic Bovine ephemeral fever rhabdovirus, a member of the Rhabdoviridae family that contains ribonucleic acid in its nucleolus. After the virus enters the body, antibodies are produced against it that neutralize the virus and fix complement. The disease is not contagious; during the blood-sucking process of flies belonging to the genera *Culex annulirostris*, *Anopheles annulipes* and others, the virus is first transmitted to them and then transmitted to a healthy animal through the flies. The virus is not mechanically transmitted to healthy cattle through the flies mentioned above, but lives in their bodies. Therefore, flies are considered a reservoir of this disease in nature.

Ephemeral fever is a disease characterized by rapid spread. The source of the pathogen is sick and virus-carrying cattle. A mosquito that sucks the blood of such animals first acquires the ephemeral fever virus, and then infects a healthy animal with this virus during the process of sucking its blood.

As the virus-infected mosquitoes are carried hundreds of kilometers by strong winds, the disease virus can spread not only within a single area, but also across a region, country, and even continent.

This disease is classified as exotic for our country, as ephemeral fever was first recorded in 1984 under the name Termez fever, and was later recorded among cattle in 2002 and 2012. It was concluded that this disease, which was observed among cattle in the Surkhandarya region in August 2012, was brought by a mosquito infected with the virus from Afghanistan by strong winds. Because this disease was registered at different times in the regions of Asia (Indonesia, Japan, China, India).

Treatment. For specific treatment, hyperimmune serum or convalescent serum against ephemeral fever is used. In addition, symptomatic treatment is effective.

It is recommended that cattle infected with ephemeral fever are initially isolated in a clean and cool place, and then treated in the following way:

- once a day, 10% caffeine sodium benzoate or camphor is injected subcutaneously, depending on the weight of the animal, in an amount of 5-12 ml;

- in order to prevent secondary infection, one of the antibiotics penicillin, tetracycline, ampicillin, gentamicin is injected intramuscularly at the rate of 2-4 thousand units per 1 kg of live weight, or one of the sulfonamide drugs norsulfazole, sulfantrole, sulfademizine, analgin aspirin and 1-4.0 ml of water, depending on the weight of the animal, twice a day.

- for atony, hypotension in sick animals, 10-12 ml of chemeritsa tincture or lactic acid is administered orally with 100 ml of water or 15-50 ml of Glauber's salt with 500 ml of water, depending on the weight of the animal, or 250 ml of 5% table salt solution is administered intravenously:

- once a day, 500 ml of 0.9% sterile physiological solution with 5% ascorbic acid, 10-20 ml of 10% calcium chloride solution and 1% tryptoflavin is administered intravenously;

- once a day, 250-500 ml of 5-10% glucose is administered intravenously, it is advisable.

Camphor oil and camphor alcohol are applied to the joints of the legs, and the mucous membranes of the mouth are treated with 5% table salt, 1:1000 potassium permanganate, 2-3% rivanol, and 11.5% copper sulfate. Treated cattle recover in 98-100% of cases.

Prevention and control measures. The main way to protect susceptible animals from the virus of this disease is to bring cattle imported to your country for breeding purposes from regions healthy for this disease, and to conduct strict clinical control during their stay in preventive quarantine. Keeping livestock buildings clean and tidy, carrying out veterinary and sanitary measures in a timely manner, namely installing disinfectant barriers at the entrance to livestock buildings, organizing entry through disinfectant-soaked disinfectant mats at the entrance to buildings, regular disinfection every 10 days with 3-4% caustic soda, 5-10% active chlorine lime, 2-3% formaldehyde, biothermal neutralization of accumulated manure, disinfecting buildings against hematophagous insects with an aqueous emulsion of 3% creolin, 0.015-10.025% cypermethrin, 0.1% ectomim or 0.0062-0.125% nurel-D, keeping them within zoohygienic requirements to increase animal resistance, and providing nutritious and vitamin-rich feed help prevent ephemeral fever among cattle.

After the outbreak of ephemeral fever in Uzbekistan in 2002, scientists of VITI (Kh.S. Salimov, A. Rozimurodov, A. Mengliyev) and employees of DVBB M. A. Rozimurodov, T.M. Tenlar jointly developed a temporary "Instruction" on measures to prevent and combat this disease, which was approved by the VITI Scientific Council and approved by DVBB on April 12, 2003. According to this "Instruction", in order to prevent the introduction of the disease

virus into the territory of our country, livestock managers and cattle owners are obliged to do the following:

-if there is a suspicion of this disease among cattle, immediately inform the responsible veterinary specialist, the Ministry of Agriculture and local authorities about it and organize the separation of sick cattle from healthy cattle until the specialist arrives;

-strictly adhere to the principle of "all free - all occupied" when placing cattle on the farm.

For specific prophylaxis of bovine erysipelas, it is recommended to use live and inactivated culture vaccines, hyperimmune and convalescent blood serum based on the "Instructions" for the use of these drugs.

If this disease is detected among cattle by clinical, epizootic, pathological, serological and virological methods, within the framework of the Veterinary Law, the farm or settlement is declared unhealthy and restrictions are imposed on it by the decision of the khokim based on the act of the chief veterinary inspector of the district (city). All restrictive measures are taken in the unhealthy area and measures are taken to prevent the spread of the disease. It is prohibited to enter and exit new cattle from the farm, mix them with other groups.

Sick animals, which are considered sources of the disease, are immediately isolated in a separate building, and in order to completely protect against hematophagous parasites, disinfection and disinfestation measures are carried out in the isolator every day in the manner indicated above, and sick animals are treated.

The restriction on the farm or population center is lifted by the decision of the khokim based on the act of the district chief veterinary inspector 30 days after the last recovered or forcedly slaughtered animal, after the manure has been collected and biothermally processed, disinfestation and final disinfection.

Immunity. Immunity in cattle infected with the Australian strain lasts for 2 years, and in cattle infected with the African strain of the virus, only a few months. Colostral immunity transferred from dams to young calves lasts for 6-7 months. Immunity in cattle vaccinated twice with an inactivated vaccine at an interval of 8-10 days lasts for 6 months.

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