EPHEMERAL CATTLE FEVER

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Annotation. This article covers ephemeral disease. The history, origin, causative agent of the disease were studied. In addition, epizootological data of the disease, symptoms, diagnosis, treatment, and preventive measures were covered. Also, the areas where the disease was last detected in Uzbekistan and the meeting places of the disease in Surkhandarya region were determined.

Key words: Ephemeral fever, RNA, virus, Rabdovirida, Culex annulirosis, anopheles annulipes, chicken, mouse, fly.

Ephemeral fever is an acute and transient transmissible viral disease that occurs only in cattle and is characterized by inflammation of the mucous membranes of the nose, mouth, esophagus and eyes, as well as skeletal muscle spasms, lameness is noted in animals.

Disease history. This disease was first discovered in 1867, 1907, 1908, 1915 in the African continent, 1887-1891, 1906-1908, 1919 in the states of Asia, 1936-1937 in Austria. This disease is especially well studied in Africa, Australia and Japan.

Of the European countries identified in Finland, Germany, Czech Republic, Slovakia, Holland and Denmark. In Uzbekistan, it was first discovered in March 1984 in the city of Termez and was named Termez fever. When studying this disease, it was revealed that it spread in the warm season, during the period of increased biological activity of blood-sucking insects.

The carriers of the virus are mosquitoes and economic damage, which consists in a sharp decrease in productivity and loss of livestock, as well as the cost of treatment and disinfection work.

The causative agent is an RNA virus belonging to the rhabdovirus family.

Epizootology. Ephemeral fever is diagnosed in South Africa, Australia, Japan and Korea. It proceeds in the form of enzo- or epizootics, spreads in the warm season, during the period of increased biological activity of blood-sucking insects. The carriers of the virus are mosquitoes.

Pathogenesis. Having penetrated through the outer integument, the virus multiplies in the endothelium and in leukocytes, causing vascular damage and the development of inflammatory-dystrophic changes in the body. Erythrocytes carry out the function of transporting the virus to various organs. Animals that have recovered from the virus develop neutralizing antibodies.

Disease symptoms. In sick animals, fever, depression, lack of appetite, serous discharge from the eyes and nose, dryness of the nasal mirror, clouding of the cornea, rapid breathing, cough, soreness of the ligaments, stiffness, lameness, muscle tremor, paresis and paralysis of the extremities, atony of the proventriculus and less often tympanum.

Pathological anatomy. The main changes are observed in the respiratory organs. They find hyperemia of the mucous membranes, hemorrhages in the pharynx, larynx, trachea. Regional lymph nodes are enlarged, juicy. In addition, inflammatory-dystrophic changes in the muscles and joints of the extremities are detected.

Histological changes are characteristic of serous-catarrhal inflammation of the upper respiratory tract, croupous pneumonia, compensatory emphysema, serous lymphadenitis, pernarthritis and hyaline degeneration of muscles (limbs, esophagus).

Diagnosis. The diagnosis is made on the basis of clinical and pathological-morphological data. For the final diagnosis, the method of fluorescent antibodies is used, which reveals the specific luminescence of the cytoplasm of leukocytes obtained from sick animals during the fever period.

Differential diagnosis. The disease must be distinguished from rinderpest, foot-and-mouth disease, and malignant catarrhal fever. With plague, the mucous membrane of the abomasum is swollen, folded, dotted with hemorrhages. The dead epithelium is easily removed in the form of diphtheria films, exposing ulcers with a dark purple or black bottom. Foot and mouth disease is highly contagious, characterized by the formation of aphthae on the mucous membrane of the oral cavity, on the skin of the limbs and udder. Malignant catarrhal fever occurs sporadically or as an enzootic. Manifested by catarrhal or fibrinous-necrotic inflammation of the mucous membranes, severe damage to the central nervous system and eyes. In cattle, local necrotic inflammation of the mucous membranes of the mouth and nose is noted.

The last case of an outbreak in Uzbekistan was registered in 2013 in Surkhandarya, Kashkadarya, Samarkand. Bukhara, Kharezm, Andijan regions, as well as in the Republic of Karakalpakstan. According to experts, the source of the disease was supposedly infected mosquitoes brought in by wind from Afghanistan or China.

In new outbreaks, the infection rate is up to 80%, and the mortality rate is 2-10%. In areas with permanent infestation, the disease is mainly 20-30% in young animals, and the mortality rate is 1-2%.

In sick animals, an increase in body temperature up to 40 - 42 ° C, chromate, lacrimation from the eye, inflammation of the mucous membranes of the eye, nose and oral cavity, profuse salivation, a decrease and sometimes a complete loss of appetite were noted. In 80% of cases, after 2 or 3 days, and in 10-20% of cases, after 4-5 days, the body temperature returned to normal. In some cases, sick animals have cough, increased respiration and heart rate, and in 90-95% of cases,

patients have no chewing gum at all. On palpation of the joints, pain is noted and the animals lie down.

Treatment and prevention of the disease in the conditions of the Surkhandarya region.

Sick animals were treated with the following methods:

- Once a day, 10% caffeine sodium benzoate or comfort was injected subcutaneously at a dose of 5-12 ml;
- every 6 hours penecellin, tetracycline, ampencillin or gentamicin was injected intramuscularly at a dose of 2-4 thousand units or from sulfanilamide preparations like norsulfazol, sulfademizine, as well as asperin inside 2 times a day;
- Against atony and hypotension inside 10-12 ml hellebore tincture or lactic acid in a dose of 15-50 ml;
- Once a day intravenously 0.9% saline 500 ml, 5% ascorbic acid and 10-20 ml calcium chloride;
- Sick joints were rubbed with camphor oil or camphor alcohol;

To combat the disease, first of all, the farm or point is declared unhealthy and certain restrictions are established. Once the disease is confirmed, responsible veterinarians should do the following:

- Without the permission of the chief veterinary inspector of the district, it is prohibited to import and export the stingray outside the farm:
- The focus (farm or house) where the disease is detected is disinfected against blood-sucking insects as well as flies and disinfestation of inventory:
- From pastures, where there were sick and suspected animals it is forbidden to collect hay and export it;
- It is forbidden to take blood from animals in disadvantaged areas;
- In dysfunctional farms it is forbidden to drive everywhere and exit vehicles and to carry out disinfection measures every 10 days;

Table 1

The table shows the degree of cattle infestation in the Surkhandarya region by district (2013)

№	Name of regions	Number of infected animals per day (target)	Total Infected (Target)	Those who have recovered from them (target)	Dead or forced slaughter (target)
1	Oltinsoy	120	2248	2248	-
2	Angor	523	10415	10415	-
3	Bandikhon	42	6784	6784	-
4	Boysun	-	1	1	-
5	Muzrabad	418	7388	7388	-
6	Denov	80	1148	1147	1
7	Jarkurgan	80	13815	13809	6
8	Kumkurgan	48	20100	20091	9
9	Kizirik	22	512	512	-
10	Sariosiyo	63	183	183	-

11	Termiz	37	4266	4266	-
12	Uzun	11	8100	8100	-
13	Sherobod	124	1336	1336	-
14	Shurchi	7	16255	16252	3
15	Termiz city	11	211	211	-
	Total	1586	92762	92743	19

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