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## Protecting Livestock from Theileriosis

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ABSTRACT

It was found that blood-parasitic diseases of cattle are widespread in the regions of the republic and cause great economic damage. Literature data were analyzed. Modern tools and methods for treatment and prevention were recommended.

Keywords:

Cattle, tayloriosis, course of the disease, vaccine, mite, prophylaxis, live weight

### Relevance of the topic.

Regular and sufficient provision of livestock products to the population of the republic is one of the urgent tasks not only for livestock breeders, but also for employees who work tirelessly in veterinary medicine and practice. Theileriosis of cattle is widespread among pedigree and productive livestock imported into the republic's livestock farms, and causes great economic damage to the development of animal husbandry. Infected cattle die up to 80-90% if they are not promptly treated with high-quality drugs. Cattle recovered from the disease become unsuitable for production.

The implementation of such an important issue is one of the urgent tasks. The most dangerous and main cause of parasitic diseases of the blood of cattle is theileriosis of cattle.

### Purpose of the study.

Analysis of the literature and initial data on theileriosis of cattle.

The causative agent of cattle theileriasis in Uzbekistan is *Theileria annulata* Dschunkowsky et Luhs (1904), which belongs to the Theileriidae family. *Theileria* develop in the reticuloendothelial cells of the lymph nodes, spleen, liver and other organs, lymphocytes and red blood cells. The channels of *Hyalomma detritum* and *H. anatolicum*, through which pathogens spread, transfer the 2-3 micron sporozoites present in their salivary glands into the skin of cattle at the same time they suck blood from the body of cattle for 2– 5 days. Sporocytes, entering the skin layer, enter the lymph nodes through the lymph and bloodstream, and then into the parenchymal organs and undergo a stage of schizogony.

In the blood of sick cattle (erythrocytes), micromerozoites appear in round, oval, pear-shaped, point-like forms.

### **The course of the disease and clinical signs.**

Theileriosis spreads through the channels belonging to the genus *Hyalomma*, *detrutum*, which is in two holdings, and through the *Anatolicum* channels, which belongs to three holdings. They send disease-causing parasites from their salivary glands into the body of the animal at the same time that they suck the blood of the animal. 17-21 days after the tick bite in cattle, the lymph nodes in the area of the shoulder blades on the thighs and udder increase, the body temperature rises to 40.6-41.20 °C.

### **Pathological and anatomical changes.**

In animals infected with these diseases, dead or forcibly slaughtered, blood clots appear in the heart, liver, kidneys, spleen during autopsy. It is noted that the liver and spleen increase 2-3 times and soften. In the chest cavity, up to 0.5 liters of bile serum is observed. There are hemorrhages and wounds in the udder. The abdomen is hard, solid food, and the gallbladder is filled with a thick bile fluid.

### **Treatment.**

Cattle infected with theileriosis should be moved to a cool and quiet place before treatment. Their diet should include easily digestible barley grass, chopped beets, fresh milk, gruel from compound feed.

When treating the disease, it is recommended to use one of the following regimens with the use of special drugs.

1. The first 1-3 days of treatment in the morning subcutaneously inject 4 mg / kg of *uzbicarb* (10.0 ml of a 4% aqueous solution of *uzbicarb* per 100 kg of live weight) per 1 kg of live weight of cattle, and in the evening for 5-6 days it is recommended to give 6 tablets (1.5 g) of *delagil* per 100 kg of live weight.

2. *Diamidine* in an amount of 2 mg / kg in the morning for 1-2 days of treatment and after 3-4 hours 100 ml of a 3% *sulfanthrol* solution per 100 ml of live weight of cattle is

administered intravenously once a day for 3-4 days. If this 3% solution is prepared and used with 33% alcohol, the treatment will be even more effective.

3. On the 1st day of treatment against theileriosis, 1.0 ml of hyperimmune serum is injected subcutaneously per 1 kg of live weight of cattle, and if on the 2nd day, 5.0 ml of *etidine* (*ethane* + *diamidine*) is injected subcutaneously per 100 kg of live weight of large cattle, the efficiency will be high.

4. Developed in Saudi Arabia, *Butachem* and *Theilex* have been shown to be highly effective when taken twice daily from 5.0 ml to 48 hours per 100 kg live weight of infected cattle.

From symptomatic drugs in the amount of 15-20 ml of a 20% solution of *caffeine-sodium benzoate* injected subcutaneously in cattle, 300-500 ml of one of the preparations *Acessol*, *Dissol*, *Trissol* and 300-400 ml of 5% glucose solution at the rate of 20 ml per 100 kg live weight of cattle intravenously and 500 mcg of vitamin B12 from one of the drugs that enhance hematopoiesis, *ferropyrin* or *ferroglucin-75* intramuscularly.

### **Prevention.**

Since the origin of theileriosis is closely related to the active life (in the warm season) cycle of *Ixod-Hyalomma anatolicum*, the *Hyalomma detrutum* channels through which pathogens spread, it is advisable to fight them not only in the warm season, but also in the cool and cold seasons.

To do this, it is necessary to improve the farm and its surroundings from the cold season, to eliminate biotopes suitable for the development of canals, and in the future to carry out rehabilitation work on pastures where cattle graze. In winter, the most important activities are manure removal, plastering and whitewashing, and livestock raising. For the prevention of theileriosis, it is recommended to use the "liquid cultural vaccine against theileriosis" 1.0 ml subcutaneously per 1 head of cattle in the cool months of the year (December, January, February). As soon as the warm days come, the cattle are washed (bathed) according to the

instructions with one of the acaricidal preparations against ticks. For the chemical prophylaxis of piroplasmidosis once every 15 days at the rate of 5.0 ml per 100 kg of live weight of cattle, polyamidine, one of the polycarbene preparations, is used subcutaneously or intramuscularly.

In general, if measures to combat pyroplasmidosis are carried out in a timely manner and with high quality, livestock will be protected from theileriosis, as a result of which our people will be able to provide the table with an abundance of livestock products.

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