

**EFFECTIVE METHODS OF CLINICAL AND LABORATORY DIAGNOSIS
AND TREATMENT OF HOOF DISEASES IN LARGE ANIMALS**

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Abstract: In this article and the results of scientific practical experiments conducted in order to develop clinical-laboratory diagnostics for early detection of hoof diseases in cattle and to determine effective methods for treatment and prevention of diseases in order to increase the quantity and quality of meat and milk products given by animals in veterinary practice are presented.

Key words: hoof, antibiotic, symptom, syndrome, diet, microbe, necrobacteriosis, invasive, f usobacterum necrophorum .

Enter. The results of the conducted researches are aimed at increasing productivity, improving the quality and quantity of meat and milk after the treatment of necrobacteriosis in livestock.

Using the recommended methods, it is possible to study and determine the clinical condition of livestock after treatment, the morphological composition of blood, the amount of some indicators of biochemical composition. This method is characterized by low invasiveness and the absence of negative changes in the life of the organism, including the recovery of the organism from the disease.

From the obtained information, experimental studies related to the training of veterinary specialists with higher and secondary specialized education, training of teachers of higher educational institutions, practicing veterinarians, clinical practice and solving other scientific problems are used in the educational process. can be used for transfer.

With the help of the surgical practice recommended in the treatment of necrobacteriosis diseases of livestock, it is possible to carry out surgical intervention with minimal damage to the hoof and toe joints, as well as soft tissues, blood vessels and nerves, thus accelerating the regenerative processes.

Relevance and necessity of the topic: Currently, providing the population with quality livestock products is one of the urgent problems. The population's demand for meat and milk is growing year by year, as a result, increasing the quality and quantity of meat and milk products from livestock remains an urgent task. In veterinary practice, in order to increase the quantity and quality of the meat and milk products given by animals, the practice of research is being carried out on a large scale. The development

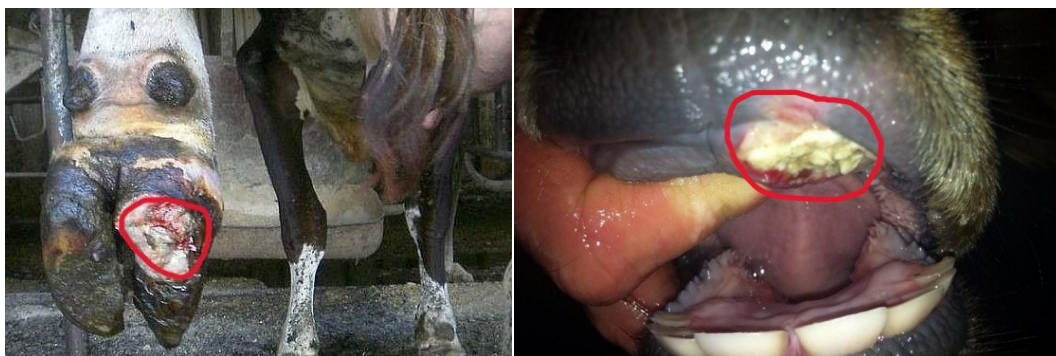
of methods of treatment against necrobacteriosis that do not have a negative effect on the animal's organism and are economically affordable are considered urgent at the present time. It is necessary to develop inexpensive and high-quality methods of necrobacteriosis.

The purpose and tasks of the work: The purpose of the research is to develop and implement effective, low-cost surgical methods of treatment of highly contagious necrobacteriosis, which is widespread among livestock, and does not have a negative impact on animal health.

To achieve the goal, the following tasks were set:

- study of anatomic topography of hoof structure of large horned animals;
- in-depth study of the biology of the causative agent of necrobacteriosis :
- study of changes in the clinical condition of the recommended treatment method in comparison with traditional treatment methods;
- to determine the effect of the recommended method on the morphological composition of the blood of experimental animals, some biochemical parameters;
- to determine the economic effectiveness of treatment of experimental animals using the recommended method compared to traditional methods.
- to test the recommended method in clinical practice in the treatment of necrobacteriosis of large horned animals.
- checking the quality and quantity of meat and milk yield of the treated animals.

Literature information. Pathomorphology of the disease: In cattle, sheep and horses, the foci of necrosis are mainly located in the lower part of the legs and hooves. When necrotic areas are cut, a mass of greenish-gray, brown purulent dead tissue is visible, in some cases they are cheesy . [1]



Picture 1: Changes in the hooves and oral cavity during necrobacteriosis in large horned animals .

The process of necrosis may have spread from the skin to the muscles, tendons and ligaments, and even to the bone. In this case, the bone becomes a loose , rapidly decaying gray mass. Cachexia is observed in carcasses of animals in which the necrotic process is located on the mucous membranes of the mouth . Necrotic foci are visible in

the throat, larynx, tongue, gums, and palate. In some cases, the necrotic process is observed in the form of a pus-fibrinous mass in the diaphragm , and in the case of foci of necrosis in the lungs, as well as the merging of this organ with the chest cavity. The back of the throat and bronchial lymph nodes are enlarged and filled with blood. Foci of necrosis are also detected in large, net and solid abdomens. If the necrotic process develops in the genitals, pathological anatomical changes are observed in this place. The necrotic mass is soft, cheesy. Sometimes diffuse necrotic changes are noticeable. [2,3,4]

Results of the research: Our scientific research works are located in the farm " Oz Nasl Elita" in the Qibray district of Tashkent region , in the "OOO Nasriddin Agro Biznes" dairy farm in the Orta Chirchik district, and in the Ohangaron district. "Best Metal" was held at the paddy farms.

During the research period, animals infected with necrobacteriosis disease were divided into 2 groups of 10 animals in each farm.

In this case, group 1 was called the experimental group and group 2 was called the control group, and 10 diseased animals were separated from each group.

Clinical, pathomorphological, hematological and dispensary methods were widely used during the research.

Results of the study of the seasonality of necrobacteriosis in cattle in the conditions of experimental farms

Table 1

| T\r | Moos | Number of recorded animals, head | Incidence rate, % |
|-----|--------------|----------------------------------|-------------------|
| 1 | January | 115 | 12.1% |
| 2 | February | 110 | 11.5% |
| 3 | March | 103 | 10.8% |
| 4 | April | 85 | 8.9% |
| 5 | May | 65 | 6.8% |
| 6 | June | 62 | 6.5% |
| 7 | July | 50 | 5.2% |
| 8 | August | 55 | 5.7% |
| 9 | September | 68 | 7.1% |
| 10 | October | 72 | 7.5% |
| 11 | November | 80 | 8.4% |
| 12 | December | 85 | 8.9% |
| | Total | 950 | 99.4 |

Table 1 shows the results of the study of the seasonality of necrobacteriosis in cattle in farm conditions, and it was observed that the maximum level of morbidity is recorded in December-April. As a result of the warming of the weather, the decrease in relative humidity and, of course, the enrichment of the animal diet with blue mass in the spring and summer months

a decrease in the incidence of necrobacteriosis was observed: 6.5% in June, 5.2% in July and 5.7% in August. With the decrease in air temperature, the incidence rate of necrobacteriosis was observed to increase again . In these months, the number of cows infected with necrobacteriosis was 2.3 times higher than in the summer months.

Prevalence of hoof diseases in animals in farm settings where research was conducted

Table 2

| T\r | Name of the farm | Checked number of animals | Known hoof diseases | | | | | Percentage of necrobacteriosis disease in the farm % |
|-----|-------------------------------|---------------------------|-------------------------|---------|-----------|------------------------|------------------|--|
| | | | Crown of phlegmonas , % | Erosion | Laminitis | Aseptic pododermatitis | Necrobacteriosis | |
| 1 | "Own Generation Elite" | 85 | 5 | 0 | 8 | 12 | 65 | 76 |
| 2 | "OOO Nasriddin Agro Business" | 132 | 2 | 6 | 4 | 20 | 100 | 75.7 |
| 3 | "Best Metal" | 185 | 4 | 10 | 6 | 20 | 145 | 78.3 |

In Table 2, as a result of inspections, indicators of hoof diseases in farms are highlighted.

It can be seen that necrobacteriosis is the most common disease. Because there are many factors that cause the disease, it is the fact that farms do not meet animal husbandry requirements, the sugar-protein ratio in the feed is not at the required level, and the vaccination work is carried out with poor quality .

As a result of the inspections, it was found that the necrobacteriosis disease was 76% at the "Oz Nasl Elita" farm , 75.7 % at the "OOO Nasriddin Agro Biznes" farm, and 78.3% at the "Best Metal" farm. is organizing



Picture 2: placing a diaper on a healthy nail and applying novocaine + antibiotic to the fingertip

A total of 30 head animals in the experimental group were treated with the following treatment scheme for necrobacteriosis:

1. primary surgical treatment was carried out in the form of a bath, in which: a solution with a special composition was used; 1 gram of 2.5% creolin, 10 grams of 5% iodine, and 5 tablets of furacilin were mixed into 0.5 liters of warm water close to the animal's body temperature solution was prepared. This process was carried out for 5-10 minutes on the first 1st day of the disease and on the 3rd day.

2. of special hoof cutters and hoof knives, the hoof is penetrated to the center of the wound and the existing pus and dead tissues are removed and the hoof is shaped.

3. Novocain + antibiotic blockade is carried out, in which 0.5% 10 ml of novocaine, 2 ml of dexamethasone and 1 million doses of bicilin-5 antibiotic were mixed to form a suspension and injected into the finger joint on the 1st and 3rd days of the disease.

4. Limoxin, gentam or ceftiosan drugs were administered intramuscularly to the sick animal for 3-5 days depending on the level of disease.

5. Oxytetracycline 99% powder and raniod powder are mixed in the same proportion and sprinkled on the injured hoof, and a special soft surgical bandage is applied. In the first 2 days of the disease.

6. Tissue therapy (autohemotherapy) was used to treat the disease.

7. healthy hoof prevents pressure on the diseased hoof and effectively helps to keep the wound clean and restore healthy tissue.

, 83.4 % of animals in the experimental group recovered without complications, and 16.6% of animals recovered with partial complications.

Clinical, hematological and pathomorphological examination of experimental animals the results of checking indicators During the experiments,

clinical examinations, hematological and pathomorphological examinations were carried out in order to determine the necrobacteriosis disease and treat the diseased animals.

During the diagnosis of necrobacteriosis, the dysfunction of the distal part was detected during the clinical examination of the legs of the animals. In addition, when checking the composition of the feed, it was found that the ratio of sugar - protein and the ratio of coarse - concentrate feed were unbalanced, and it was proved that these indicators create a basis for the development of necrobacteriosis and other hoof diseases.

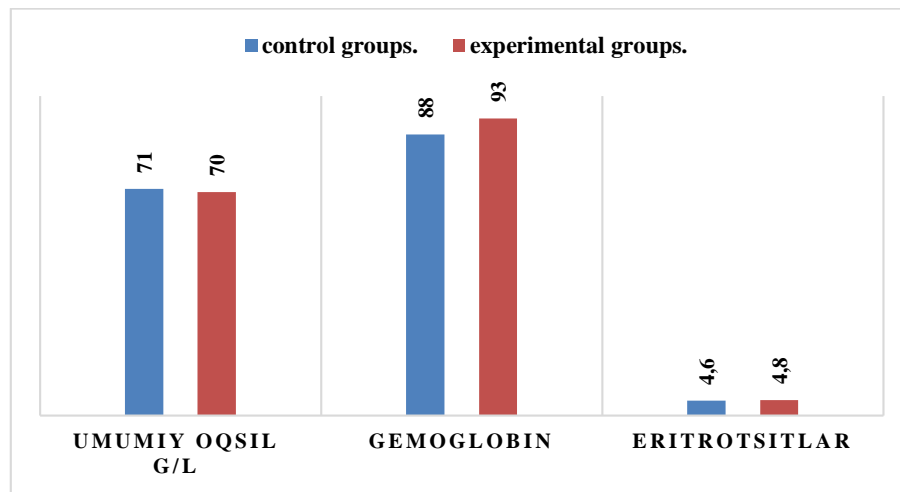
The conducted ration analysis revealed that the ratio of sugar and protein in the total of nutrients is 4.5-5 times less than the recommended average norm. In order to study the effect of different rations on rumen pH acidity index, the rumen pH level of cows was checked every week with the help of a food probe for two months. As a result, the sugar-protein ratio is large and the level of stomach acidity is high

As a result, it was found that it affects the productivity of cows. A total of 60 animals were studied on three farms to investigate the effects of ruminal acidosis and subacidosis on hoof health in cattle. First, the ratio of sugar and protein in the diet of cows and the pH index of the rumen were studied, and it was tested that these parameters are the etiological factors of the origin of hoof diseases, especially necrobacteriosis.

As a result of the examination of animals infected with necrobacteriosis, the following pathomorphological changes were observed, including the discharge of gray pus from the necrotic hoof plate, the formation of swelling in the throat lymph node, the presence of necrotic wounds in the lungs, the accumulation of pus in the pleura, and the appearance of severe coheses in the animal. determined as a result.

The hematological parameters of experimental animals were evaluated using generally accepted methods.

the experimental and control groups during the disease and during recovery from the disease, hematological examinations were carried out during the experimental period.



Hematological indicators of animals in the experimental and control groups.

CONCLUSIONS

42.3 % of high-yielding cows and bulls in the farms where the experiments were conducted . Out of a total of 402 lame animals, 310 were infected with necrobacteriosis , and the prevalence of the disease was 77%.

It was found that diseases of the distal parts of the legs among high-yielding bighorns were distributed as follows: necrobacteriosis was 77%, crown phlegmon was 2.7%, erosion was 3.9%, laminitis was 4.4%, and aseptic pododermatitis was 12.9%.

than mastitis and reproductive organs pathology in cattle farms . It was found that especially Holstein-Friesian cows are more prone to hoof problems, which causes significant economic damage in dairy farms in our country.

Necrobacteriosis has a seasonal character , and a high incidence rate was observed in the winter months. In these months, the number of infected cows was 2.3 times more than in summer months.

The imbalance of the sugar-protein ratio in the diet of productive cows and the increase of acidity in the large rumen fluid showed a direct correlation in being etiological factors in the origin of hoof diseases. Such a connection was also found in the recording of necrobacteriosis. As a result of research conducted in cattle farms, it was found that the percentage of cows infected with necrobacteriosis in different rations is from 8.33 % to 22.22%.

In the experiments, a differential diagnosis system for effective timely treatment of necrobacteriosis of the distal part of the leg was developed and successfully tested on farms.

Effective drugs against *F.necrophorum* causative agent, limoxin, gentam or ceftiosan, 1 ml of 30 kg of live animals, were used intramuscularly for 3-5 days depending on the degree of the disease, reducing the treatment time by 99.3%.

In the prevention of necrobacteriosis, the composition and method of application of hoof baths, which are economical from the economic side and have an effective

effect on necrobacteriosis, were developed and comparative tests were conducted. Composition: 1 gram of 2.5% creolin, 10 grams of 5% iodine, 5 tablets of furacilin per 0.5 liters of water at a temperature close to the body temperature of the animal . was determined.

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