

ETIOLOGY, TREATMENT AND PREVENTION OF  
NECROBACTERIOSIS DISEASE IN FARMS

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**Anotation:** This article provides information on the etiology, pathogenesis, spread, clinical signs, diagnostic methods, recommendations for treatment and prevention of necrobacteriosis, a disease that causes great damage to livestock.

**Аннотация:** В статье представлены сведения об этиологии, патогенезе, распространении, клинических признаках, методах диагностики, рекомендации по лечению и профилактике некробактериоза – заболевания, наносящего большой ущерб животноводству.

**Anotatsiya:** Ushbu maqolada chorvachilikga katta zarar berayotgan nekrobakterioz kasalligining etiologiyasi, patogenezi, tarqalishi, klinik belgilari, diagnostika usullari, davolash va oldini olish bo'yicha tavsiyalar haqida ma'lumotlar keltirilgan.

**Key words:** Necrobacteriosis, spore, capsule, etiology, pathogenesis, vaccine, disinfection, desmurgia.

**Introduction:** The development of the livestock industry largely depends on the breed, productivity, and most importantly, the health of livestock. Today, veterinary workers are given new tasks, that is, they are used in the treatment and prevention of various diseases in farm animals. Use of new drugs and normalization of pathological processes requires the use of new, modern methods and tools. Based on the analysis of literature data and personal observations, it is known that the share of non-infectious diseases among cattle is high (66-88%), hoof diseases make up 10-20% of them. Due to damage caused by hoof diseases, productivity indicators decrease by 70-80%. In addition, as a result of injuries, the body's resistance to infection decreases, as a result of which it is prone to infectious and invasive diseases. As a result of hoof damage, breeding bulls die and are quickly sold for meat. All this leads to a decrease in economic efficiency.

**Level of study of the problem.** The economic damage of necrobacteriosis is great. Sick animals lose weight, the mortality rate reaches 70-75%. The milk of dairy cows decreases sharply. Treatment and prevention require large amounts of money. The disease affects all types of animals, including cattle. Animals of all ages, especially young animals, are more affected. The main reason for this is that the skin of young animals is thin and loose, so they are prone to injury. The quantity and virulence of the causative agent are of great importance. The source of the disease is sick and recovered animals. The causative agent of the disease lives in the gastrointestinal tract of ruminants, wild animals, rodents, birds and spreads widely in the external environment (livestock buildings, hay bales, manure, soil, pastures, water bodies). The disease develops in the rainy months of the year, that is, late autumn, winter and early spring. Because healthy tissues are well supplied with blood and oxygen, these bacteria do not develop in them. The bacterium develops very quickly in an anaerobic environment due to the disruption of the oxygen supply of the damaged tissues through the blood. In the process of reproduction, they release toxic substances, damage healthy cells, and strong inflammation begins in that place. Enzymes released from cells contribute to the development of this process. The causative agent enters the blood and leads to a septic process. A diseased animal dies as a result of the development of necrotic processes due to the spread of the pathogen to the internal organs. Microorganisms that get on the animal's feet form a purulent exudate, and due to soil, mud and other impurities, a coating is formed in this place and an anaerobic environment is created. In such conditions, bacteria can easily grow and develop.

**Materials and methods.** The cause, treatment and prevention of necrobacteriosis was studied at the Tashkent branch of the Samarkand State Veterinary Medicine University of Animal Husbandry and Biotechnology, the Tashkent Region Veterinary and Livestock Development Department, the Tashkent Region State Center for Animal Diseases and Food Safety, and livestock farms. Based on the information obtained with the help of specialists of the district veterinary department, the organization of the veterinary system service in the district and its control, the plan of preventive and anti-epizootic measures in the district, the epizootic situation in the district and epizootic maps were studied. Carcasses of forcibly slaughtered animals in the region are microbiologically examined in the bacteriological department of the veterinary laboratory. Together with laboratory specialists, we used microscopic, bacteriological and biotesting methods. Existing hoof diseases in farms were analyzed, the disease situation in farms was studied, treatment and preventive measures were carried out.

**Research results and analysis.** Diseased animals are separated from healthy animals and treated individually and in groups. If the wound is on the leg of the animal, the dead tissues and pus on the leg are washed and cleaned with chemical means (1% potassium permanganate, 3-5% copper sulfate, 1% tryptoflavin solution in alcohol), for treatment ASD-3 Antibiotic ointments were used to treat the causative agent. When the wound on the animal's hoof is serious, disinfection baths containing 3-5% formalin, 2-3% creolin, 2-3% zinc and copper sulfate have been effective. Antibiotic therapy was performed. It was administered intramuscularly at 4 mg/kg for 3 days. If the injury is located on the mucous membrane of the oral cavity, 3-5% zinc, copper sulfate solutions, 5% iodine, 1% potassium permanganate solutions were used for its treatment. In addition, application of iodine-glycerin, syntomycin, biomycin or other antibiotic ointments, in addition to the above-mentioned preparations, gave good results. the wound was treated open, without a bandage

It is known from world experience that the inactivated Nekovak vaccine against cattle necrobacteriosis, created by Russian scientists (A.A. Sidorchuk et al.) in order to create active immunity in the body, is the best effective tool for prevention today. Immunity is formed in 15-20 days and lasts for 6 months. Depending on the epizootic situation, revaccination is carried out after 6 months. Buildings where animals are kept are cleaned of manure and 3-5% formalin, disinfected with 5-10% hot caustic soda or 5% active chlorine lime in the amount of 1m<sup>2</sup>/10 l. When necrobacteriosis is detected among cattle in the farm, special dizabarers are established for the treatment and prevention of the disease, where the 1st pool is used with plain water, the 2nd pool with 3-5% copper sulfate solutions, and the 3rd pool with 2-3% creolin solutions.

Recommendations for practice: Necrobacteriosis disease is currently found in many breeding and fattening farms, causing great economic damage with a sharp decrease in milk yield and a significant decrease in the weight of animals. Therefore, it is necessary to implement the following comprehensive measures to prevent the disease in each farm:

- keeping newly imported goods in preventive quarantine for 1 month;
- keeping animals' stamina at a high level
- creation of normal zoohygienic storage conditions;
- protection from various poisonings and non-infectious diseases;
- cleaning buildings where animals are kept, places where sick animals are kept from manure;
- Disinfection, disinsection, deratization activities should be carried out regularly.

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