

## AETIOLOGY OF THE PATHOGENIC AGENTS INVOLVED IN THE DISEASES OF ACROPODIAS IN CATTLE

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**Introduction.** The study of the negative economic effects produced by acropodial diseases in cattle are particularly important, because they reduce the effectiveness of exploitations and investments in this field. Most researchers in the world mention that lameness in cows, according to the level of economic losses, is in third place after sterility and mastitis.

**The goal of the work.** Establishing the presence and identification of pathogens involved in septic diseases of acropodia in cattle through microbiological laboratory research.

**Materials and methods.** Affected acropodia (14 acropodia) from slaughtered animals that could not be treated, or tissues samples (6 samples) took from the border between healthy and affected formations, were sent to the laboratory. The pathological material was examined: microscopically by making smears; culturing on nutrient media; received culture was inoculated into laboratory animals.

**Results of research and discussion.** The main pathogenic agent of podopathies in taurine's is the anaerobic microorganism – *Fusobacterium necrophorum*. In healthy animals this microbe is commonly present in the digestive tract, on the digestive and genital mucosa. It is found in dung and soil.

*F. necrophorum* has the appearance of a thin, polymorphic, non-encapsulated, non-sporulated and non-ciliated bacillus, with variable sizes, predominantly filamentous forms, without ramifications. It stains Gram negative, unevenly, in the cytoplasm observing granulations, which give the appearance of “railroad tracks”. *F. necrophorum* forms a hematoxin capable of destroying erythrocytes and tissue fibers, having a role in the production of necrosis.

The pathogen has low resistance. Temperature of 60-65°C kills it in 5-15 minutes, and sunlight – in a few hours. In winter, it is kept in frozen soil for up to 60 days, in summer – up to 30 days, in water and dung – 30-60 days, in morphopathological material – 25-35 days.

*F. necrophorum* does not eliminated with milk, but contaminating it, it is preserved for up to 35 days. They can be destroyed by common disinfectants. Under the action of 1% phenol, it is destroyed in 5-10 minutes; lime chloride in 30-60 minutes; rivanol of 1:100 – in 15 minutes; 1% formaldehyde solution – in 20 minutes; potassium permanganate 1:1000 – 15 minutes; 45% ethyl alcohol – 20 minutes.

Associated microflora (*Staphylococcus sp.*, *Micrococcus sp.*, *Bac. simplex*, *Bac. subtilis*, *Escherichia coli*, *Bac. proteus vulgaris*, *Streptococcus sp.*, *Bac. coliformis* etc.) are always present in the foci of taurine podopathies, which persist in the environment of the premises, in paddocks, pastures and other places, where acropods trauma of cattle can occur.

**Conclusions.** For the complex and effective treatment of cattle with acropodial diseases, it is necessary to take into account the presence of the mentioned flora in the choice of therapeutic preparations (antibiotics, etc.), which suppress its growth and development.