STUDY OF ANTIMICROBIAL ACTIVITY BASED ON THE TREATMENT OF RESPIRATORY FLUORFENICOL DISEASES IN CALVES

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The article presents the test results of antimicrobial activity determination of medicinal product containing fluorfenicol and non-steroid anti-inflammatory substance flunixin meglumine.

Fluorfenicol is considered to be the medicinal product chosen for the treatment of respiratory diseases of animals, the resistance to its effect develops slowly. The very important fact is that this antibiotic belongs to the medicinal products that are not used in the sphere of human medicine minimizing the risk to human health as a result of the possibility of cross resistance occurrence.

Flunixin meglumine used in combination with fluorfenicol facilitates faster recovery, minimizing the occurrence of inflammatory process in organism and increasing of induration of lungs and necessity of repeated application of antibiotics.

The test was conducted studying the sensitivity to antimicrobial substances of different groups of microflora of biological material samples, selection and identification of microorganism cultures and determination of minimal inhibitory concentration of the medicinal product Floricol for bacteria-isolates, causal agents of respiratory diseases in calves.

The test determined very wide spectrum of microorganism sensitivity to different groups of antimicrobial substances. According to typical morphological, tinctorial, cultural, biochemical and serological features the clinical strains belonged to Streptococcus pneumoniae, Staphylococcus aureus and Escherichia coli.

The variation range of fluorfenicol MIC within 0,47-3,75 µk/ml allows to provide strong bacteriostatic effect on microorganisms Streptococcus pneumoniae and Staphylococcus aureus and combined application with flunixin meglumine allows to reach high therapeutic effect.

Keywords: FLUORFENICOL, FLUNIXIN MEGLUMINE, ANTIMICROBIAL ACTIVITY, RESPIRATORY DISEASES, CALVES.