THE INFLUENCE OF DANOFLOXACIN ON SAME BIOCHEMICAL INDICES OF BLOOD SERUM OF CALVES SUFFERING FROM RESPIRATORY DISEASES

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The respiratory disease is observed in dairy and meat cows and is one of the reasons of economic losses in the sphere of animal husbandry all over the world. These economic losses are the result of excessive mortality, body weight loss and also expenses on the treatment and prevention of diseases. The respiratory diseases are often mentioned as "complex of respiratory diseases of young cattle" due to multifactor etiology. The cost of expenses as a result of respiratory diseases is different all over the world. The calves that suffer from clinical or subclinical respiratory diseases do not gain weight in comparison with other healthy calves. The of meat breed that suffer from respiratory diseases do not gain weight, have decreased efficacy of feeding and often have low sort of meat at the following slaughter.

In addition to economic expenses as a result of mortality and diseases, significant losses are connected with the treatment of the respiratory diseases because of different therapeutic agents and the efforts necessary for the administration of these agents together with additional expenses for isolation and examination of these animals.

The main method of treatment of respiratory diseases of bacterial etiology is antibiotic therapy. The choice of good therapeutic product is often impossible because of the existence of antibiotic resistant strains of causal agents. The resistance of organisms has poly-resistant character. That is why aiming at getting of good therapeutic effect it is necessary to choose effective antibacterial medicinal product that would contain active substance.

Today the medicinal products of fluorquinolone range have become very popular among veterinary doctors. The fluorquinolones are highly-active synthetic chemotherapeutic means of wide spectrum of bactericidal effect characterised by good pharmacokinetic properties, high bioavailability and high level of penetration in tissues and cells of macro organisms.

The main representative of fluorquinolones that is widely used in Ukraine for the treatment of respiratory and intestinal diseases of bacterial etiology in productive
animals including cattle is enrofloxacin. However, despite its good pharmacological properties, wide and often irrational usage caused the occurrence of populations of microorganisms resistant to enrofloxacin. There is a need in creation and implementation of the medicinal product with similar pharmacological properties that would possess antibacterial activity against polyresistant strains of organisms, causal agents of infectious diseases.

Danofloxacin is fluorquinolone antibiotic of the third generation that possesses wide spectrum of antimicrobial activity against gram-positive and gram-negative bacteria, namely: - causal agents of respiratory and intestinal infections of cattle.

The efficacy of the therapy characterises clinical course of disease and recovery, tolerance of animal, the occurrence of side-effects and recurrence. The article presents the test results of fluorquinolone antibiotic influence on some biochemical indices of blood serum of calves suffering from respiratory diseases. The obtaines results showed that danofloxacin does not negatively influence liver and kidneys of calves that is demonstrated by the decrease of urine concentration and creatinine.

**Keywords**: FLUOROQUINOLONES, RESPIRATORY DISEASES, CALVES, BIOCHEMICAL PARAMETERS.