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**PREVALENCE AND ETIOLOGICAL ROLE OF CLOSTRIDIUM  
PERFRINGENS BACTERIA IN DAIRY FARMS**

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**Abstract:** The paper presents the results of our own research on the spread of *Clostridium perfringens* in dairy farms in Ukraine during 2019 and the cause and complication of cattle diseases by these bacteria. *Clostridium perfringens* has been found to have epizootic significance in the etiology of gastrointestinal diseases, pneumonia, endometritis and mastitis.

**Key words:** *Clostridium perfringens*, clostridiosis, cattle diseases, pneumonia, endometritis, mastitis.

**Introduction.** In veterinary medicine, clostridiosis has always been and remains an urgent problem. Due to the presence of a large number of species and serotypes of clostridia, most disinfectants and antibiotics used for prevention and treatment, unfortunately, are ineffective [1, p. 6]. The etiological role of clostridia, in particular *Clostridium perfringens*, has not been sufficiently studied, and the data are contradictory [2, p. 25-27, 3, p. 656]. Therefore, the aim of our work was to analyze the prevalence and determine the etiological role of clostridia in the cause and course of cattle diseases.

**Methods.** Epizootological, pathological anatomical, clinical, bacteriological methods of research were used. Biomaterial from 16 farms of Ukraine from cattle with gastrointestinal diseases (n = 28), endometritis (n = 49), mastitis (n = 86) and respiratory pathology (n = 33) were studied. Isolated bacterial cultures were identified using tests recommended in the Bergi Bacterial Identifier. We performed statistical processing of the obtained data using computer programs Microsoft Excel and Statistica 7.0.

**Results.** Clostridia, which had toxigenic properties, lecithinase activity and produced hemolysins, were isolated in 76 samples of biomaterial (35.8%). *Clostridium perfringens* bacteria were isolated from 20 animals with gastrointestinal pathology (71.4%), from 23 cows with endometritis (46.9%), from 14 animals with respiratory pathology (42.4%) and from 15 cows with mastitis (17.4%). Three dairy farms (18.7%) were stationary problem regarding clostridiosis.

The high incidence of calves and cows in farms coincided with the violation of veterinary and sanitary requirements for keeping animals (7 farms, 43.7% of cases). Lack of a systematic approach to the treatment of animals (10 farms, 62.5%), the use of poor quality feed (6 farms, 37.5%), metabolic disorders, shift of acid-base balance in the direction of acidosis (11 farms, 68.7%).

**Conclusions.** It is established that bacteria *Clostridium perfringens* are widespread in dairy farms of Ukraine. 18.7% of farms stationary are problem regarding clostridiosis. Animals in which *Clostridium perfringens* was detected most often have gastrointestinal diseases (71.4%), which occur with a more severe course. Endometritis was observed in 46.9%, pneumonia - 42.4%, mastitis - 17.4% of animals with clostridiosis.

Therefore, further study of the etiopathogenesis of clostridiosis is quite relevant and will improve treatment and prevention methods and measures to control cattle clostridiosis in Ukraine.

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