

Conclusions. Fluctuations in temperature with an amplitude of 2.8 ° C and 8% humidity contribute optimal conditions for growth and development of the Ukrainian steppe bee family. Fluctuations in temperature with an amplitude of 2.6 ° C and -13% humidity contribute normal conditions for the growth and development of the Hadyach line bee family.

**Key words:** honey bee, abiotic factors, microclimate, forecasting, bees, hives.

#### *How to Cite*

Kalynychenko, O., Kucher R., & Mylostyvyi, R. (2021). Microclimate of the beehive in the conditions of the northern steppe of Ukraine. Proceedings of the 2nd International Scientific and Practical Conference AWCGCC, April 21-22, 2021. Dnipro, 9–11.



## **INDICATORS OF HOMEOSTASIS OF CANINE ACUTE PANCREATITIS UNDER THE INFLUENCE OF BIOLOGICALLY ACTIVE SUPPLEMENTS “HUMILID”**

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*Встановлено, що біологічно активна добавка «Гумілід» володіє протизапальною та ентеропротекторною дією при лікуванні гострого панкреатиту в собак. Застосування гуміліду сприяло зменшенню часу відновлення підшлункової залози та кишечника.*

Introduction. In the structure of canine acute pathology of abdominal cavity, acute pancreatitis came out on top in frequency, outpacing other nosological diseases. The proportion of dogs with acute pancreatitis is 10-25%, or even 40%. The most rational treating of canine acute pancreatitis is a strict conservative tactic.

International researches have shown that humic substances work at the cellular and subcellular level in the animal's body. They penetrate into the cell and participate in metabolic processes, optimizing them, facilitate the passage through the intestinal wall of inorganic ions. This reveals the stimulating effect of humic substances on individual systems and the body as a whole. Nowadays, humic substances have been tested in various fields of animal husbandry and veterinary medicine, proving their



high efficiency. However, in each case, additional studies are needed to clarify the dosage and regimen.

The aim of the study was to determine the therapeutic efficacy of the biologically active supplement "Humilid" added to the standard treatment regimen of canine acute pancreatitis.

**Material and methods of research.** To achieve the experiment goals, an experimental and control group of 6 dogs, that suddenly became sick, was formed on the principle of analogues. During the experiment, it was analyzed the results of treatment of 12 Yorkshire terriers aged from 6 months to 2 years, weighing 2.5-3.5 kg, 7 males and 5 females with acute pancreatitis. All dogs were treated in the private clinic of entrepreneur Losiev V.G. Diagnosis of acute pancreatitis was carried out on the basis of a comprehensive examination, namely the presence of clinical manifestations; laboratory tests: SpeccPL test systems, biochemical and hematological parameters; ultrasonographic examination of the pancreas. The obtained data were processed by the method of variation statistics using Student's t-test.

During the treatment, the animals were kept in a veterinary clinic with a starvation diet for the first two days, and then on a special diet.

The treatment regimen for dogs with acute pancreatitis included: starvation diet for 48 hours; Pathogenetic therapy in the form of infusions: "Prednisolone 3%" at a dose of 1 mg / kg, 1 time per day for 5 days, "Kvamatel" at a dose of 2 mg / kg 1 time per day for 5 days, "Kontriven" at a dose of 10,000 IU / kg 1 time per day for 5 days; Symptomatic therapy: "Osetron" at a dose of 0.1 mg / kg, subcutaneously, twice a day for 3 days, "Papaverine" at a dose of 2 mg / kg, subcutaneously, twice a day for 3-6 days, "Butomidol" at a dose of 0,01 mg / kg, subcutaneously, twice a day for 3 days. Replacement therapy: "Stereofundin" at a dose of 15 ml / kg, intravenously, 2 times a day for 5 days, "Glucose 5%" at a dose of 15 ml / kg, intravenously, 2 times a day for 3 days.

From the third day of treatment experimental group animals were fed with biologically active supplement "Humilid" at a dose of 0.1 ml / kg for 21 days.

On the 6th and 12th day of treatment, it was performed intermediate assessment, dynamics of laboratory parameters changes. Clinical examination was performed daily.

**Research results.** Clinical examination of all sick dogs revealed anorexia, general anxiety, signs of dehydration, pale mucous membranes, periodic vomiting with bile, pollakiuria. Palpation of the abdominal wall revealed tension, pain and flatulence. Unformed stools had a sharp odor. Laboratory blood tests showed general leukocytosis with a shift to the left, increased ESR and hematocrit, increased glucose, ALT, pancreatic lipase and amylase. Ultrasonography detected accumulation of gases in the intestine and signs of pancreas inflammation.

During the first days of treatment, the recovery dynamics of both groups had a similar nature in clinical condition changes. Instead, at the beginning of the 6th day

of treatment, the experimental group animals had better appetite compared with the control group. At the same time, gas formation in the intestines of the experimental group dogs reduced significantly. Besides, the experimental group animals that were additionally fed with Humilid, had less signs of colic, which made it possible to cancel antispasmodics. In turn, the reduction of fermentation processes in the intestine accelerated the formation of normal stools, which indicates the anti-inflammatory effect of "Humilid" and is confirmed by the normalization of the average content of total leukocytes and ESR. Thus, the reduction of the intestinal mucosa recovery is probably due to the fact that humic substances activate cellular metabolism and regenerative processes. The mechanisms are explained by the enzymes activity changes, which lead to increases in oxidation and reduction processes, gas exchange and tissue respiration, and the intensity of free radical oxidation in tissues is suppressed.

Animals that received additional "Humilid" on the 6th and 12th day of treatment, had lower average level of pancreatic lipase by 15.6 and 20.2% ( $P \geq 0.99$ ), compared to animals of the control group. Another pancreatic marker, amylase, had a similar tendency. On the 6th day of treatment the experimental group dogs had normal level of pancreatic amylase activity, while the control group animals had higher level of this indicator -  $55.4 \pm 2.04$  units / liter. At this stage the difference between control and experimental values was 28.5% ( $P \geq 0.95$ ). On the 12th day the level of pancreatic amylase was within the reference values in both group of animals, but control group dogs had periodic signs of dysfunction of the gastrointestinal tube, namely vomiting and diarrhea.

On the 6th day of the experiment the control group animals had erythropenia with a decreased hemoglobin, which may be the result of toxic effects of activated enzymes on erythrocyte membranes. The animals of the experimental group didn't have any signs of anemia, and on the 12th day it was found an increased level of red blood components, which indicates activation of hematopoietic function of the red bone marrow under the influence of biologically active supplement "Humilid".

**Conclusions.** Biologically active supplement "Humilid" has anti-inflammatory and enteroprotective effects for the treatment of canine acute pancreatitis, reduces the recovery time of the pancreas and intestines. In addition, moderate stimulation of hematopoietic function of the bone marrow was found.

**Key words:** acute pancreatitis, canine, biologically active supplement "Humilid".

#### *How to Cite*

Losieva, Ye. Belozor, M., & Losieva, K. (2021). Indicators of homeostasis of canine acute pancreatitis under the influence of biologically active supplements "Humilid".

Proceedings of the 2nd International Scientific and Practical Conference AWCGCC, April 21-22, 2021. Dnipro, 11–13.

**ВЕТЕРИНАРНО-САНИТАРНА ЕКСПЕРТИЗА М'ЯСА ПРИ  
ІНВАЗІЙНИХ ХВОРОБАХ ТВАРИН В УМОВАХ ДЕРЖАВНОЇ  
ЛАБОРАТОРІЇ ВЕТЕРИНАРНО-САНИТАРНОЇ ЕКСПЕРТИЗИ РИНКУ  
«БЕРЕЗИНСЬКИЙ» МІСТА ДНІПРО**

**Veterinary and sanitary examination of meat in invasive animal diseases in  
the state laboratory of veterinary and sanitary examination of "Berezynskyi"  
market in Dnipro**

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*In the state laboratory of veterinary and sanitary examination of the Berezynsky market in Dnipro, the following invasive diseases were recorded by post-slaughter veterinary examination of animal slaughter products for 2019-2020: swine echinococcosis, bovine fasciolosis and rabbit coccidiosis. Monitoring of cases of invasive diseases showed the following results: echinococcosis of pigs - 1.32; fasciolosis of cattle - 3.69; coccidiosis of rabbits - 16.0%, respectively. Echinococcosis and fasciolosis meat should be considered as raw materials with low nutritional, biological and sanitary qualities. In such meat, a higher percentage of moisture was observed with a decrease in protein and fat content.*

Вступ. Серед багаточисленних інвазійних хвороб великої рогатої худоби значне місце належить широко розповсюдженим захворюванням – ехінококозу та фасціольозу. Дані захворювання приносять великі економічні збитки господарству, які складаються із кількісних втрат пов'язаних з вибракуванням внутрішніх органів і м'яса, втрат вгодованості та молочної продуктивності. М'ясо, субпродукти та особливо печінка є цінними харчовими продуктами для людей і водночас – добрим середовищем для розвитку мікроорганізмів.

Метою досліджень була оцінка продуктів забою тварин щодо виявлення інвазійних захворювань при ветеринарно-санітарній експертизі.

Методи. При органолептичному дослідженні м'яса звертали увагу на зовнішній вигляд, запах і консистенцію м'язової тканини на поверхні та розрізі, на стан жиру, сухожилків, кісткового мозку і бульйону. Бактеріологічні