## **SECTION 6. VETERINARY MEDICINE**

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## RESULTS OF CLINICAL AND HEMATOLOGICAL STUDIES FOR CHOLANGIOHEPATITIS IN DOMESTIC CATS

# РЕЗУЛЬТАТИ КЛІНІЧНИХ ТА ГЕМАТОЛОГІЧНИХ ДОСЛІДЖЕНЬ ЗА ХОЛАНГІОГЕПАТИТУ В ДОМАШНІХ КОТІВ

#### Morozenko D. V.

Doctor of Veterinary Sciences, Senior Researcher, Senior Researcher at the Department of laboratory diagnostics and immunology Sytenko Institute of Spine and Joint Pathology of the National Academy of Medical Sciences of Ukraine Kharkiv, Ukraine

#### Kibkalo D. V.

Doctor of Veterinary Sciences, Professor, Professor at the Department of Internal Diseases and Clinical Diagnostics of Animals State Biotechnological University Kharkiv, Ukraine

#### Kravchenko N. O.

Candidate of Veterinary Sciences, Associate Professor, Associate Professor at the Department of Internal Diseases and Clinical Diagnostics of Animals State Biotechnological University Kharkiv, Ukraine

#### Морозенко Д. В.

доктор ветеринарних наук, старший дослідник, старший науковий співробітник відділу лабораторної діагностики та імунології ДУ «Інститут патології хребта та суглобів імені професора М. І. Ситенка Національної академії медичних наук України» м. Харків, Україна

### Кібкало Д. В.

доктор ветеринарних наук, професор, професор кафедри внутрішніх хвороб і клінічної діагностики тварин Державний біотехнологічний університет м. Харків, Україна

### Кравченко Н. О.

кандидат ветеринарних наук, доцент, доцент кафедри внутрішніх хвороб і клінічної діагностики тварин Державний біотехнологічний університет м. Харків, Україна

Among liver diseases in domestic cats, cholangiohepatitis is a fairly common pathology [1, p. 580], although in veterinary practice there are other diseases of the liver of cats, in particular, hepatocellular adenocarcinoma [2, p. 38]. According to the results of the analysis of the clinical and anamnestic data of patients with cholangiohepatitis in cats, it was found that no violations of feeding rules were observed in the animals during their keeping. In all clinical cases, cholangiohepatitis in cats was detected accidentally: the owners noticed a deterioration of appetite and depression, a decrease in activity, jaundice of the skin and visible mucous membranes, and consulted a veterinarian.

Depression in 100.0% of cats with cholangiohepatitis was caused by a pain syndrome and the development of endogenous intoxication due to hyperbilirubinemia, in 60.0% of sick animals by an increase in body temperature from 39.5 to 40.2 °C. One of the most likely causes of cholangiohepatitis in cats is bacterial infection (staphylococci and streptococci), which penetrate from the intestines into the bile ducts and disrupt their structure, causing immune hepatocellular damage [3, p. 75]. Cholangiohepatitis can also be caused by viruses and parasitic agents, but this etiological aspect has not been studied sufficiently [4, p. 220]. Vomiting was observed during the last 2–3 weeks with a frequency of 1–3 times a week, the color of vomitus was from white to yellow with admixtures of mucus. Diarrhea was observed only in 25.0% of sick cats with a frequency of 2–5 times a week, the color of feces was from dark yellow to brown. Jaundice of visible mucous membranes and skin was detected during clinical examination in 80.0% of sick cats.

Ultrasound examination of the liver of cats for cholangiohepatitis revealed the following echographic signs: an increase in the size of the liver – in 65.0% of diseased animals, a diffuse increase in the echogenicity of the liver parenchyma – 85.0%, heterogeneity of the structure of the organ – 60.0%, thickening and compaction of the bile ducts – in 75.0%. Such an echographic picture may indicate the development of a severe inflammatory-destructive process in the liver tissue and bile ducts in sick animals [5, p. 14]. According to the results of the analysis of anamnestic data, the results of clinical and ultrasound examination of patients with cholangiohepatitis in cats, it was found that the disease progressed in a severe clinical form. To find out the degree of hematopoiesis disorders, the functional state of the hepatobiliary system, kidneys, as well as protein, mineral and lipid metabolism, laboratory studies are necessary.

For cholangiohepatitis, a decrease in the number of erythrocytes by 41.7% and hemoglobin content by 45.9% compared to healthy animals was established. Oligochromemia and oligocythemia were established in 100% of sick cats: the maximum indicators of hemoglobin content and the number of erythrocytes in sick cats were 13.4 and 3.7% lower than the minimum values in healthy cats. Hypochromia was established in 45% of cats, microcytosis in 10%. The hematocrit in sick animals decreased by 20.0%, the rate of erythrocyte sedimentation increased by 9.8 times. Such changes indicate the development of anemia in sick cats.

The increase in the number of leukocytes in the peripheral blood of sick cats by 1.9 times and the proportion of rod-shaped neutrophils by 6.0%, compared to clinically healthy animals (p<0.001), indicates the presence of an acute inflammatory process in the liver. A relative decrease in the number of lymphocytes from  $24.0\pm1.27$  to  $14.0\pm1.70\%$  was established, which, in our opinion, developed gradually and was caused by a violation of the state of the immune system of animals during the progression of cholangiohepatitis. The number of eosinophils, basophils and monocytes in the blood of sick cats did not change.

Thus, changes in erythrocytopoiesis in cats due to cholangiohepatitis are manifested by the development of anemic syndrome, leukocytopoiesis by neutrophilic leukocytosis with a simple shift of the nucleus of neutrophils to the left and relative lymphopenia. Such dynamics of hematological indicators is due to the exacerbation of the inflammatory process in the hepatobiliary system of animals against the background of a long course of the disease.

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