

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ  
НАЦІОНАЛЬНИЙ ФАРМАЦЕВТИЧНИЙ УНІВЕРСИТЕТ  
КАФЕДРА КЛІНІЧНОЇ ЛАБОРАТОРНОЇ ДІАГНОСТИКИ  
КАФЕДРА БІОЛОГІЧНОЇ ХІМІЇ ТА ВЕТЕРИНАРНОЇ МЕДИЦИНИ**



**IV науково-практична міжнародна  
дистанційна конференція**

**«СУЧАСНІ ДОСЯГНЕННЯ ТА ПЕРСПЕКТИВИ КЛІНІЧНОЇ  
ЛАБОРАТОРНОЇ МЕДИЦИНИ У ДІАГНОСТИЦІ ХВОРОБ ЛЮДИНИ  
ТА ТВАРИН»**

**28 березня 2024 року  
ХАРКІВ – УКРАЇНА**

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molecular biology of severe viral pathogens in aquaculture, such as piscine rhabdoviruses, orthomyxoviruses, togaviruses and nodaviruses, certainly represent new tasks for the future.

## CAPILLARIOSIS OF CHICKEN IN THE HOUSEHOLD

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**Actuality.** In the pathology of chickens, helminthiasis caused by various types of nematodes are quite common. *Capillariasis* in Ukraine is registered in all regions. Capillariasis is a common chronic helminthic disease of chickens, turkeys, and guinea pigs caused by three types of nematodes: *Capillaria obsignata*, *Capillaria bursata*, *Capillaria candinflata*.

The source of this infestation is sick chickens and adult chickens – parasite carriers, as well as turkeys, guinea fowls and wild birds – pigeons, starlings, etc., which scatter helminth eggs in the environment. It was noted that in free-living predatory birds, 60 % of all helminthiasis are nematodes, and there is a large number of cases of helminthic infestation with a subclinical course. Wild and synanthropic birds can also be a source of spread of invasive diseases among poultry.

**Aim** of the work was to study the epizootological situation regarding parasitosis of chickens in the private sector of the city of Uzyn, Bilotserkiv district, Kyiv region, and to compare the effectiveness of oral brovadazole-plus and promectin for capillariosis in chickens.

**Materials and methods.** The research material was 2-year-old laying hens (40 heads) of the Russian and Poltava breeds of the private sector in the city of Uzyn. We formed two research groups of 20 chickens each, which were treated with brovadazole-plus and oral promectin. Brovadazol-plus was prescribed with food at a dose of 500 mg per 1 kg of body weight, dividing the dose into two days.

Oral promectin was diluted in drinking water in the amount of 1/4 of the daily norm and drunk individually in the morning. The dose of promectin was 1 ml of the drug per 25 kg of body weight, which is equivalent to 0.4 mg of ivermectin per 1 kg of body weight. The average weight of chickens was 2 kg. The diagnosis was established based on the data of coproovoscopy studies by the combined method of Darling in the modification of G.A. Kotelnikova and V.M. Hrenova using a saturated solution of granular ammonium nitrate. Helminth eggs were counted in three drops of flotation solution before and after deworming and the average value was taken.

**Results.** Since capillariosis in adult poultry is more often asymptomatic, we did not observe significant changes in the condition of chickens during clinical examination. Only a decrease in appetite, frailty and a slight delay in growth and development were noted. During the laboratory examination of feces, in the field of view of the microscope, capillary eggs of yellowish color, barrel-shaped with caps on the poles, with a smooth shell, and immature were found. The results of our research showed that laying hens had a weak and moderate degree of capillariosis infestation.

Capillaries were found in all of the 40 samples examined, so the extent of invasion was 100%. The total number of eggs of the pathogen was 421. The intensity of infestation varied from 4 to 19 eggs. On average, it was 10.5 eggs in the field of view of the microscope ( $II = 10.5 \pm 3.3$ ). Then we used brovadazole plus orally with food for treatment in the first experimental group, and promectin with water in the second. After the application in the 1 experimental group of brovadazole-plus, on the 12th day, the laying hens did not show complete clinical recovery, they were still weak, and the extensive efficiency (EE) was 28.4%, with the intensive efficiency (IE) 44.2% , which indicates insufficient therapeutic effect of this drug for capillariosis of chickens.

On the 12th day from the start of promectin administration, oral EE and IE reached 100%, which indicates that the body of laying hens has been freed from capillary eggs. The bird became livelier, its appetite improved. Therefore, the first experimental group of chickens was also treated with promectin, as a result of which they recovered and got rid of capillary eggs.

**Conclusions:** 1. The private sector of the city of Uzyn, Kyiv region, is unfavorable in relation to chicken capillariosis. 2. Oral promectin in a therapeutic dose of 1 ml per 25 kg of body weight freed the body of laying hens from causative agents of capillariosis, as evidenced by the results of helminthoovoscopic studies. 3. Brovadazole-plus in a dose of 500 mg per 1 kg of body weight turned out to be a poorly effective drug for the treatment of laying hens for capillariosis.

## CLINICAL APPROACHES TO THE DIAGNOSIS AND TREATMENT OF PREGNANCY TOXEMIA IN COWS AND EWES

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**Actuality.** Pregnancy toxemia is a metabolic disease that commonly affects pregnant ewes and does during late gestation. The terms twin lamb or kid disease, lambing or kidding sickness, lambing or kidding paralysis, and lambing or kidding ketosis are commonly used to describe the condition in sheep and goats. Pregnancy toxemia is prevalent in both range and farm flock sheep operations, as well as in meat, hair, and dairy goat production systems (Goulopoulou et al., 2015).

The disease is rare in cow operations; however, under certain management conditions, brood cows carrying multiple fetuses may be affected. Regardless of species, the clinical signs associated with pregnancy toxemia can occur in pregnant individuals with normal body condition, in pregnant animals that appear over-conditioned, or in thin pregnant animals. Affected individuals are generally pregnant with multiple fetuses and in their last month of gestation.

**Aim** of the work was to conduct a scientific search for scientific data and to study diagnosis and treatment of pregnancy toxemia in cows and ewes.

**Materials and methods.** Researches were conducted on cows (*Bos Taurus*) of the *Ukrainian Black-and-White dairy breed*. Groups were formed based on the principle of analogs. The research was carried out using the methodology of group-period experiments (2019-2024).

**Results.** During the initial stages of the disease, mild clinical signs often go unnoticed. Affected animals appear sluggish, often lagging behind the flock or herd while in transit to feeding or watering areas. If observed closely, affected animals commonly approach feeders with the flock or herd, yet fail to eat. As the disease progresses, affected animals separate themselves from the group, appear blind or disoriented, wander into objects or stand in the same area, or fail to flee from approaching people, dogs, or equipment. Affected individuals are typically constipated, and teeth grinding is common. In the later stages of the disease, weakness and mental dullness increase, leading to recumbency and death. When helped, affected ewes and does will often stand, yet only walk several steps before collapsing to a recumbent position. As metabolic acidosis develops, an increased respiratory rate may mimic signs of pneumonia. In the terminal phases of the disease, affected animals are unable to stand. Head pressing, muscle tremors, subtle convulsions, lip twitching, and star-gazing postures are common. Helpful diagnostic aids include a strong ketone-positive reaction on urine ketone test strips and a "fruity" ketone smell to the breath. If left untreated, recumbency usually