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Збірник містить матеріали виступів учасників Міжнародної науково-практичної конференції науковців, викладачів та аспірантів «Актуальні питання ветеринарної медицини: реалії та перспективи – 2026», що присвячені висвітленню актуальних питань ветеринарної медицини.

Матеріали друкуються в авторській редакції мовою оригіналу. Відповідальність за зміст матеріалів несуть автори.

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however, in most dogs there was a clear decrease in the severity of inflammatory symptoms, improvement in general condition and restoration of activity.

Ultrasound examination confirmed the obtained data on clinical status. Before treatment in experimental groups of dogs, the prostate was characterized by an increase in size, heterogeneity of the parenchyma, decreased echogenicity, the presence of hypoechoic foci, increased vascularization, etc. In animals of experimental group I, ultrasound signs of inflammation began to decrease on the 8-10th day of treatment. In experimental groups II and III, the disappearance of inflammatory processes had approximately the same terms – on the 6-8th day of observation. In experimental group 4, with the use of a gel containing Silver nanoparticles, the ultrasound picture of the prostate gradually normalized starting from day 5. In all experimental groups, on day 5-7 from the start of therapy, a decrease in the degree of edema and restoration of homogeneity of the echostructure were noted, which reflects a decrease in cellular infiltration and suppression of the bacterial component of inflammation. Subsequently, by day 10-14, a decrease in the size of the gland, smoothing of the contours, disappearance of small hypoechoic zones associated with focal inflammation, as well as a decrease in the intensity of blood flow according to Doppler imaging, which indicates regression of hyperemia and stabilization of microcirculation.

Conclusions: use of Silver nanoparticles allows to increase the speed of normalization of the prostate gland in dogs with prostatitis and to reduce the duration of antimicrobial or anti-inflammatory therapy. It was also found that the monocomponent use of a gel containing Silver nanoparticles contributes to significant changes in the echostructure of the prostate, restoration of its condition due to a rapid decrease in the intensity of inflammatory processes.

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SYPHACIOSIS OF LABORATORY MICE

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Laboratory rodents are a universal biomodel for conducting various medical and biological research [1]. Laboratory animals that come from specialized nurseries to experimental biological clinics and laboratories are most often already infected with helminths of various classes, including nematodes. This problem exists for nurseries and open-type vivariums. The infection of animals is due not only to the peculiarities of this type of keeping and breeding of rodents in the nursery itself,

but also to the complexity of selecting drugs for conducting preventive treatments of breeding stock and premises where animals are kept [1–3].

Rodents affect the ecological and epidemiological situation in urbanized ecosystems, as they spread and accumulate synanthropic carnivorous and human helminths. Settling in human dwellings and contaminating household items and food with their excretions, rodents can be carriers of helminthiasis to humans, including zoonoses [4–5]. Such helminths are various types of sifations. A person can become infected by swallowing helminth eggs with food through hands contaminated with invasive agents.

Syphacia is a helminthiasis caused by the nematode Syphacia spp. Two types of Syphacia are mainly found in laboratory rats: S. obvelata (Rudolphi, 1802) and S. muris (Yamaguti, 1935) [1–3]. We did not set ourselves the goal of determining the species, since the damage caused to the host organism is the same regardless of the type of Syphacia. In the causative agent Syphacia obvelata, the female is 3.5–6 mm long, the male is 1.3 mm. S. obvelata and S. muris can parasitize domestic hamsters and laboratory rodents. S. obvelata parasitizes in the intestines of rats and mice [1–3, 6, 7].

Female Syphacia lay eggs in the perianal area, which become invasive within a few hours. Once in the small intestine, larvae emerge from the eggs. Males reach sexual maturity by 120 h. After fertilization, females die. Females contain mature eggs until the ninth day, lingering in the rectum, then deposit them in the perianal area of the host, and can release eggs repeatedly.

The uterus of one female contains up to 140 eggs [1, 8]. The waste products of helminths, released into the host's body, have toxic properties, lead to various changes in the host's metabolic processes, disruption of protein, carbohydrate and lipid metabolism, and decreased immunity [3, 9].

According to the authors, Syphacia nigeriana was found in common voles (6 out of 25) with an invasion intensity (II) of 12 ± 8.1 eggs. Red voles (6 out of 30) were infected with Syphacia petrusewiczi – II = 57.2 ± 21.1 eggs. Wood mice (3 out of 8) were infected with a third type of syphacia – Syphacia frederici – II = 51.0 ± 45.0 eggs. Syphacia obvelata was registered in one house mouse out of 30. Syphacia was not found in wild gray rats, but they were present in the laboratory rat – Syphacia muris with II = 34 eggs. Another type of nematode was found in three out of seven laboratory mice – Aspiculuris tetraptera with a very high II = 457 ± 278.7 eggs. Aspiculuris tetraptera is a common rodent parasite that has been found in humans in Japan [1–4, 10]. In view of this, the topic of the research is relevant.

The aim of this work was to study the epizootic situation regarding helminthiasis in laboratory mice of the vivarium.

The study of fecal samples was carried out by a combined method standardized by G. O. Kotelnikov and V. M. Khrenov using a saturated solution of granulated ammonium nitrate.

The animals were fed a standard diet during the experiment. To determine the epizootic state, 110 samples of feces from BALB/c mice were selected and examined in the laboratory of the Department of Parasitology and Pharmacology, Faculty of Veterinary Medicine, Bila Tserkva National Agrarian University. As a result of the studies, syphagous eggs were found in 38 of 110 samples. They had a light gray color, a thin, smooth two-layer shell, granular content, an asymmetric shape, one side of which was flat and the other convex, in other words, the shape of an asymmetric ellipse.

The extensiveness (EI) and the intensity of invasion (II) were, respectively, 34.5% and 3.2 eggs.

Thus, according to the authors, five species of syphacies were registered in synanthropic biocenoses in mouse-like rodents: S. obvelata, S. nigeriana, S. petrusewiczi, S. frederici, S. muris - and Aspiculuris tetraptera in laboratory mice, which are also dangerous for humans.

The infection rate of laboratory mice in the vivarium with syphacies was 34.5% with an invasion intensity of 3.2 eggs, therefore, appropriate treatment and preventive measures were prescribed.

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HISTOPATHOLOGICAL DIAGNOSIS OF DERMATITIS IN DOG AND CAT BASED ON THE ANALYSIS OF MORPHOLOGICAL CHANGES (PATTERN ANALYSIS)

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Introduction. Histopathological diagnosis of non-neoplastic skin diseases in dogs and cats remains one of the most challenging areas of veterinary medicine due to the substantial morphological variability of lesions and the limited specificity of individual histological features [7]. A modern approach to addressing this challenge is based on a hierarchical model of analysis, in which the initial step involves the recognition of architectural inflammatory patterns [1].