

Diagnosis and chemoprophylaxis of rabbit eymeriosis

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Abstract. This article analyzes the prevalence of rabbit eymeriosis in the rabbit farms of Samarkand, Kashkadarya, Bukhara, Khorezm, Namangan regions of the Republic of Uzbekistan. As a result of the research, it was carried out on rabbit-specialized farms of the districts of Bolungur, Jomboy, Urgut, Pastdargom of Samarkand region, Fergana city and Koshtepa of Fergana region, and it was found that eymeriosis in these farms significantly hinders the development of the network. In particular, the prevalence of rabbit eymeriosis has been found to be 42.7% in Bulungur district, 38.4% in Jomboy district, 35.5% in Urgut district, 45.1% in Pastdargom district, and 36.4% in Koshtepa district, Fergana valley, with 37.3% in Fergana rabbit farms. The diagnosis of the disease eymeriosis, which causes great economic damage to their farms, the essence of certain methods used in the diagnosis of the disease and the treatment of preventive measures are described.

1 Introduction

In the current period, when ensuring food safety is considered an urgent task, it is important to increase the efficiency of the rabbit network as well. The introduction of methods of prevention and effective treatment of Diseases found in rabbits in the performance of this urgent task is a necessity in production for this network.

In order to establish rabbit breeding on a scientific basis, it is necessary to establish rabbit breeding farms in the regions of the Republic and take measures to increase the head number of purebred rabbits.

The introduction of a cooperative system and the creation of a value-added chain due to the adaptation of meat-oriented rabbit breeds to local conditions and the establishment of specialized rabbit-breeding livestock farms.

At the moment, the incidence of Parasitic Diseases in the disease of rabbits is also significantly increasing, the main reason for this is the lack of proper veterinary care, non-compliance with the rules of zoohygiene, the lack of planned preventive measures against parasitic diseases.

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Aimeriosis of rabbits - anthrax is an acute and chronic ocular protozoose disease that causes several types of eymerias in the epithelial cells of the intestine and in the liver in the occipital of the parasitic clot.

Eymeriosis is an invasive disease called eymerias (coccidia), simple unicellular parasites [4, 6-7].

Spread of the disease. Eymeriosis was widely abandoned in all regions of the Republic, on rabbit farms of the regions of Samarkand, Kashkadarya, Bukhara, Khorezm, Namangan. In our personal research, the piggy bank of the Samarkand region was carried out on rabbit-specialized farms of the districts of Bulungur, Jomboy, Urgut, Pastdargom, Fergana city and Koshtepa districts of the Fergana region, and it was found that there was a significant obstacle in the development of eymeriosis tarmok on farms in these farms. In particular, the prevalence of rabbit eymeriosis was found to be 42.7% in Bulungur district, 38.4% in Jomboy district, 35.5% in Urgut district, 45.1% in Pastdargom district, and 36.4% in Koshtepa District of Fergana valley, with up to 37.3% in Fergana rabbit farms [14-15].

2 Materials and methods

Clinical signs. In rabbits, eymeriosis is accompanied by various clinical signs. In most cases with eymeriosis, rabbit Cubs up to 3 months of age are seriously ill. Rabbits become numb at a time when the disease is strongly disturbed, their characidity drops sharply, their nutrition slows down, gastrointestinal activity is disrupted (diarrhea), diarrhea is sometimes accompanied by a mixture of blood, as a result of which rabbits lag behind growth-development. The use of highly effective antiemeric drugs in the early diagnosis, treatment and Prevention of the disease provides an opportunity to effectively treat the disease and reduce economic damage[13].

The latent period of the disease is 4-12 days. Rabbit eymeriosis occurs in acute and chronic flow. Depending on the location of the eymerias in the body, intestinal, liver and mixed forms are distinguished. In typical cases, rabbits have a mixed form of eymeriosis, in most cases, the clinical signs of the disease are of a mixed nature.

Acute course. This rejection takes place for several days, and mainly rabbits 20-60 days are more likely to get sick. One of the earliest clinical signs of the disease is the weight loss and anemia of infected rabbits. Later, rabbits develop signs of low mobility, loxiness, high laying. One of the most characteristic signs is constipation most common in young rabbits. This condition is most common during the summer period when rabbits are fed with blue grass. Over time, diarrhea stops, then appears again, there is a rest of the abdomen in rabbits. The visible mucous membranes turn pale. Rabbits with the disease have a worsening eating, remain from growth, lose weight, the skin coating (wool) is observed as if it is colorless, crunchy, the belly is enlarged and hanging. Another characteristic sign of the disease is considered the appearance of a condition of polyuria (multiple urination), the condition of polyuria is less important in diagnosing eymeriosis than in the case of frequent urination. When urine is examined, albuminuria, grass pigments, blood pigments are not visible, nephritis in rabbit eymeriosis and catarrhal inflammation of the mucous membranes of the urethra are observed. In some rabbits, a state of excessive salivation is observed, catarrhal inflammation of the nasal mucosa and a state of conjunctivitis.

In the course of the disease in the form of a liver, the liver becomes larger. Sick rabbits are weak, without attention to the environment, lie down a lot. Usually in such rabbits, appetite disappears. Visible mucous membranes are pale. Enlargement of the abdomen, palpation of the right side of the abdomen is painful, especially in the case when the liver is heavily damaged, this process is conspicuous. In sick rabbits, a nervous state is visible, which is accompanied by a state of paralysis or tremors, especially the sudirge (tremor) of the muscles of the neck that are audible. After that, the tremor goes to the muscles of the

shoulder and hind legs. Rabbits then throw their head on the back, placing their hind legs wide, falling into a position as if they were swimming with their front legs. After that, rabbits die [2, 5, 12].

3 Results and Discussion

3.1 Microscopic examination

The Darling method is a method of dipping the eggs of parasites, helminths, first into the sediment, and then calcining on the surface of the solution.

Results of hematological examination. When examining the biochemical and morphological changes of blood in rabbit eymeriosis in the Laboratory of "Hematology" of the University, the following were found: during the disease, the acid-base balance is disturbed (acidosis), the chlorine stagnant indicator decreases (Hypochloremia), blood sugar levels decrease. These indicators are the cause of impaired carbohydrate metabolism in the body. A decrease in the amounts of erythrocyte and hemoglobin occurs. Leukocytosis occurs in the animal, a state of leukopenia at the end of the disease [1, 9].

Table 1. Results of hematological examination.

Indicators	Measurement	Average	1 group experience			2 group experience			group 3 control		
			Intracox oral			Koksitoks					
Erythrocyte	ml/mcl	5.0-5.8	4.8	4.9	4.8	4.9	4.8	4.9	5.0	4.8	4.7
Leukocyte	Ming/mkl	5.0-12.5	13.5	14.1	13.8	14.1	10.6	15.1	11.8	13.6	11.9
Hemoglobin	g/l	105-125	97	99	98	96	98	96	99	97	100
Common protein	g/l		48.4	46.7	45.7	44.3	47.3	45.7	48.9	48.3	47.5
Glucose	Mol/l	4.16-5.27	3.1	2.9	2.5	2.7	2.9	2.7	3.1	3.0	3.0

3.2 Pathologoanatomic changes

Rabbit carcasses in the direction of meat of the "Khikol" Breed, brought from the "Maqsudabonu business service" X/KSI of the Urgut District of the Samarkand region, in the "body light" room under the Department of "Animal anatomy, histology and pathological anatomy", were cracked and analyzed in the laboratory of the "State Center for animal diseases and food safety" of the Fergana region.

3.3 Appearance

The rabbit's torso is very lean, the mucous membranes of the eyes, mouth are whitish in color, anemia (anemia), the wool around the back outlet hole is contaminated with blood mixed fluid, slime debris. Skeletal muscles are whitish in color, in the state of atrophy. The mucous membranes of the mouth, throat, esophagus are whitish blue.

3.4 Interior

There is a small amount of feed in the Caucasus. The inner mucous membrane of the small intestine was reddened with a furnace, several foci of 1-2 mm enlarged shiny necrosis were formed. The intestinal food is semi-liquid, white reddish. The mucous membranes are swollen, red-bordered, whitish-colored coatings, in which the blood absorbed between them is visible, when Grease was taken from the whitish foci and microscopically examined, a large number of rounded Oval oocysts were visible.

3.5 Characteristic changes

In the blind intestine, the condition of enlargement, swelling and external serum curtains are dark red, when palpating, dark layers of blood clots and absorbed mucous tissues were detected on the cut surface with a solid consistency.

At the expense of the growth of connective tissue in the bile ducts in the liver, bony growths, bulges were identified. The parenchaema of the liver capsule also produced road-like, tapered bulges of a whitish color. When they were tilted, a flowing semi-liquid mass flowed out, a large amount of eimerian oocysts were visible when the prepared greases were seen in a microscope.

3.6 Patanatomic diagnoses

- Atrophy of skeletal muscles.
- Catarrhal hemorrhagic enteritis.
- Hemorrhagic typhlite.
- Toxic dystrophy of the liver.

3.7 Final diagnosis

Eymeriosis (rabbit deaths occurred from eymeriosis, a protozoan disease caused by eymerias parasitizing) [10].

3.8 Diagnosis of eymeriosis

All data is aggregated. This takes into account epizootological data, rabbit age, clinical course of the disease, pathologoanatomic changes, and changes in the liver in mixed appearance. The final diagnosis of the disease is made by microscopic examinations.

Of the most important of the clinical signs - it is worth paying attention to the painful condition of the liver, it is seen that the mucous membranes are pale, jaundice increases when the liver is heavily damaged, there is an enlarged abdomen, weight loss, diarrhea, the appearance of a condition of polyuria.

In dead and forcibly slaughtered rabbits, the most characteristic pathologoanatomic changes occur in the intestines and liver. A catarrhal inflammation in the mucous membrane of the small compartment and a worm-like tumor of the blind intestine, a hemorrhagic inflammatory condition is observed in the severe form of the disease.

In the mixed form of eymeriosis, the liver is sharply enlarged, small white or yellow ulcers appear on the liver.

For microscopic examination, a mass in the intestines of a litter or dead animal from infected rabbits and rabbits is taken and examined using the Darling method. In eymeriosis, a large number of eimerian oocysts can be detected in the field of view of the microscope.

When dead rabbits are cracked, grease is prepared from the mucous membrane of the affected intestines and bile ducts in the liver. Then these greases are dried, fixed using methyl or ethyl alcohol and painted in the Romanovsky-Gimza method and examined under a microscope to analyze the different step states of the eymerias.

Greases are made from white and yellow sores on the liver, the object is taken into the mirror and viewed under a microscope. A large number of eymerian oocysts can be found in this [3].

3.9 Eymeriozno differential diagnosis

It is necessary to distinguish rabbit eymeriosis from diseases such as colibacteriosis, pasteurellosis, tuberculosis, listeriosis and pseudotuberculosis.

3.10 Treatment treatments

In our experiments, in recent years, we have tested some new antiparasitic drugs that are being used in veterinary practice as an antiemeric drug in different proportions and quantities. The following eymerostatics noted in high indications for the treatment and Prevention of rabbit eymeriosis are recommended for veterinary practice: Intracox oral, Coxitox, Vazuril.

Intracox oral-Interchemie werken" De Adelaar " B.V.Metaalveg Holland. The acting substance is toltrazuril.

Koksitoks 2.5%-000" Belekotechnik " Pukhovichsky r-n, Minskaya obl., Republic Of Belarus. The acting substance is toltrazuril.

Vazuril 2.5% is a Vapco oral drug. The acting substance is toltrazuril.

One of these drugs is used with drinking water according to the following Scheme: 1 ml of the drug is added to 1 l of drinking water, and rabbits are drunk continuously for 2 days in a row (48 hours). It is recommended to renew the drinking water in which this drug is added, depending on the extensibility. In case of severe diseases by necessity, the course of treatment is repeated after 5 days.

For the treatment of eymeriosis, Amprovet 25% (Uzbieocombinate-biveco) and furazolidone preparations from powdery drugs are recommended.

In the treatment of rabbit eymeriosis, Amprovet 25% powder is applied consecutively for 3-5 days on the account of 1 g of the drug per 1 kg of feed. And for prophylaxis, rabbits are used for 10 days from the age of 1.5 months, at the expense of 0.5 g of the drug per 1 kg of lobster feed.

1 kg of feed from the drug furazolidone is mixed into em in the amount of 0.5 gr of the drug and given continuously for 9 days [8, 11].

4 Conclusion

Prevention of rabbit eymeriosis is aimed at increasing the endurance of young rabbits. In order to reduce the risk of rabbits infecting oocysts, the cages and maternity hospitals where they are kept are cleaned of rabbit droppings daily. It is advisable to keep rabbits in 2-layer, wire mesh cells. The oysters and water tanks where food is distributed must be outside the cage, as rabbits can climb over oysters and water tanks, contaminating them.

Rabbits brought to the farm are required to be kept in preventive quarantine, checked against eymeriosis. When strongly infected rabbits are found, they are separated from the group, added to the general group after treatment. Young rabbits are recommended to be kept separate from older rabbits. Before giving birth, the cage (Cage) must be thoroughly cleaned and disinfected.

It is advisable that the feeds and bedding remain outside in sunlight for a while before feeding the rabbits. Drinking water should be brought from an undamaged area or cooled by boiling.

Considering that properly falling sunlight affects the oocysts of the eymeria, it is required to build and equip the cages and grazing areas where rabbits are kept based on these principles.

Cells and equipment in which rabbits are kept are washed with boiling water, iron items are disinfected with a incinerator lamp or boiling water.

For disinfection, 4% carbolic acid, 5% creolin and other solvents are applied in an amount of 0.5 l per 1 m² area.

In order to increase the body's resistance to eimeriosis, rabbits give a positive result of feeding with high-quality, nutritious, protein, vitamin and microelements-rich nutrients.

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