ISSN 2181-3187

UDK: 619:636.92:616

# PROTECTION OF RABBITS FROM EYMERIOSIS (COCCIDIOSIS)

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**Abstract:** In this article, statistical, epizootological, information about rabbit eimeriosis, the course and symptoms of the disease, pathological changes in internal organs, diagnostics, as well as brief information about measures to combat and prevent eimeriosis in rabbit farms .

**Key words:** Sporozoa, eimeria, coccidia, oocyst, invasion, diarrhea.

**Annotatsiya:** Ushbu maqolada quyon eymeriozi haqida statistik, epizootologik, ma’lumotlar, kasallikning kechishi va belgilari, ichki a’zolardagi patologik o‘zgarishlar, diagnostika, shuningdek quyonchilik xo‘jaliklarida eymeriozga qarshi kurashish va oldini olish chora-tadbirlari haqida qisqacha ma’lumotlar.

**Kalit so‘zlar:** Sporozoa, eymerioz, koksidiya, oosista, invaziya, diareya.

**INTRODUCTION.** The most important task of agriculture is to further increase the production of livestock products. Rabbit farming is one of the areas with great potential in terms of increasing meat production and supplying light industry with raw materials. In the decision of the President of our country dated January 29, 2020 "On additional measures to support the livestock industry" No. implementation tasks were defined. According to this decision, a program for starting rabbit breeding clusters in 2020-2024 was developed based on the program for the development of rabbit breeding in our Republic.

The analysis of the world experience of rabbit breeding shows that this direction is one of the productive branches of animal husbandry, and private farms are the main performers of its development. The development of rabbit breeding has a high potential not only due to its potential in forming prospective demand in the market, but also due to its biological properties. That is, this animal is considered the fastest among domestic animals. According to the data, if the weight of a calf doubles in 47 days, a baby rabbit will achieve this result in 6 days. Also, female rabbits can be bred from the age of four months. A female rabbit with a live weight of 5 kilograms under good conditions of feeding and care can give birth up to 6 times a year, and in the end, it

ISSN 2181-3187

gives the opportunity to get up to 42 rabbits. This means up to 100 kilograms of meat and 42 pieces of fur.

Due to the increasing number of entrepreneurs engaged in this industry in our republic in the following years, eimeria is a parasitic disease among rabbits. as a result of its death, rabbit children are lagging behind in growth and development, causing great economic damage to farms.

**LITERATURE ANALYSIS AND METHODOLOGY.** Eimeria in rabbits is a widespread, acute and chronic invasive, protozoan disease of rabbits, caused by several types of eimeria parasitizing intestinal epithelial cells and liver.

Eimeria causes great economic damage to rabbit farms, and as a result, rabbits in farms can be completely destroyed overnight. Rabbit eimeria is widespread in all regions of our Republic, especially in rabbit farms of Samarkand, Kashkadarya, Bukhara, Khorezm, and Namangan regions, and it significantly hinders the development of the industry. The nature of the diseases caused by Eimeria and their economic damage require constant improvement of preventive and treatment methods.

According to systematics, the causative agent of rabbit eimeriosis belongs to the Protozoa animal world, Apicomplexa type, Sporozoa class, Coccidiida family, Eimeriidae family, Eimerinae subfamily and Eimeria genus. One of these species of coccidia, Eimeria stiedae, parasitizes the liver of rabbits and causes liver eimeriosis, while other species parasitize the intestine. Hepatic emeryosis lasts a long time (30-50 days). In terms of clinical appearance, it is similar to intestinal emeryosis, but the difference is that the symptom of the disease is less expressed. Usually both are seen at the same time, and each rabbit has several types of eimeria. The development cycle of these eimeria is very complex, but it is almost the same in all species, in 20-60-day-old rabbits, eimeria occurs in an acute form and is accompanied by gastrointestinal disturbances (diarrhea), especially widespread in summer. Sick and recovered baby rabbits are the source of infection, and adult rabbits serve as carriers of eimeria. In rabbit houses contaminated with Eimeria oocysts, cages, water, feed, equipment, and breeding grounds are "facilitating" factors in the spread of infestation. Also, the infestation can be spread with the shoes of farm workers, stuck to brooms, shovels, rodents and wild birds and insects. Figure 1.

ISSN 2181-3187

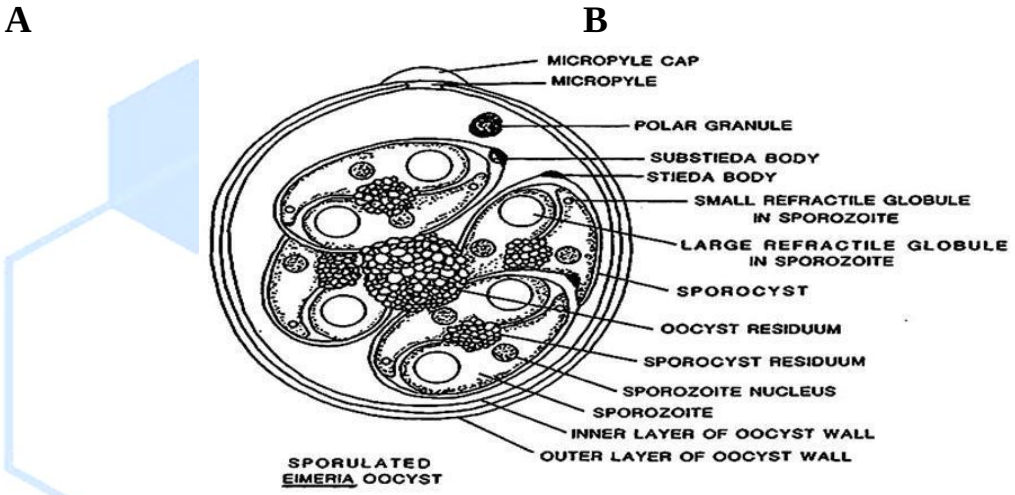


**Figure 1. General structure of A-eimeria. Microscopic view of B-eimeria. Scheme of the internal structure of V-eimeria.**

Like all spores, rabbit eimeria undergoes three stages of development: Stage I - reproduction by schizogony or multiple asexual divisions; II period - gametogony or sexual reproduction; The third period is the formation of sporozonts by sporogony or asexual reproduction and the formation of spores that protect them from the impact of the external environment, which develops in the presence of a host, reproduces.

Three forms of rabbit eimerosis are distinguished depending on the location of eimeria in the animal organ: 1. Intestinal, 2. Liver, 3. Mixed forms. In practice, the mixed form of invasion plays an important role. At the beginning of the disease, the intestines of the rabbit are damaged, and then the liver is damaged, and as a result, the mixed form begins. After the latent period of infestation, the rabbits lose their mobility and lie down on their stomachs. His appetite decreases and he stops eating. Abdominal cavity swells and gives pain, feces are liquid, sometimes mixed with mucus and blood. Sick rabbits stop growing, lose weight, and their fur is wrinkled. Urinary excretion is accelerated. Sometimes the secretion of saliva increases, the mucous membrane of the nose becomes catarrhally inflamed and conjunctivitis develops. With the start of inflammatory processes in the liver, the body becomes sluggish, the rabbit becomes indifferent to the external environment and lies less. He loses his appetite, his stomach is swollen, and he feels pain when he presses on his right side. The visible mucous membranes turn yellow, the muscles of the legs and neck become paralyzed, they begin to tremble, and they die after 7-10 days.

ISSN 2181-3187

Figure 2

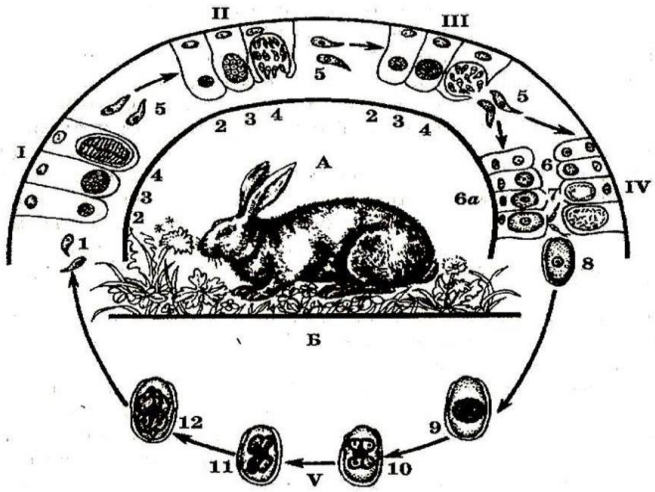


Figure 2. Stage of development of Eimeria media: 1 – sporozoite; 2–4 – development of first and next generation schizonts; 5 – merozoites; 6 – development of microgametes; 6 a – development of macrogametes; 7 – microgametes; 8 – zygote (oocysts); 9 - an oocyst from a rabbit, not wrapped in a spore; 10–12 – sporogony.

Keeping young rabbits in kennels more than the norm, deterioration of the microclimate - environment in kennels, feeding birds of different ages, poor quality of feeding, causes a sharp decrease in the level of natural endurance (resistance) of the rabbit body and makes it susceptible to diseases. The main factor that spreads the disease is sick and recovered rabbits.

**CONCLUSION.** Rabbits should be kept clean in separate cages, in open air or in unheated rooms, in order to prevent the disease of rabbits, it is necessary to renew the litter every day, it is necessary to treat the food and water containers with boiling water from time to time.

- Feeds should be enriched with vitamins and microelements.
- It is necessary to carry out chemoprophylactic measures during the period when the rabbit children are separated from their mother.
- In order to prevent the disease, rabbits should be kept in mesh cages.
- The data of the literature show that eimeriosis is widespread among the invasive diseases of rabbits, taking into account the fact that the field is developing, it is of great importance for the study, practice and production of diagnostics of its spread and modern chemoprophylaxis.

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