THE ROLE OF INTERMEDIATE HOSTS IN THE PREPATENT DEVELOPMENT OF TREMATODAS

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Annotation.
This article talks about the role of molluscs in the embryonic development of trematodes, their importance, variety, habitat.

Key words.
Trematoda, Lymnaea, miracidia, sporacista, redia, cercaria, adoleskaria.

Relevance of the topic.

In recent years, the increase in demand for food products has led to an increase in the need for quality meat and dairy products. In order to provide the population with high-quality milk and meat products, it is necessary to form healthy livestock farms. As a result of the conducted inspections and researches, it became known that when cases of infestation with helminths among animals are recorded, productivity indicators decrease as follows. It has been found that the milk yield of cows infected with fasciolosis decreases by 20-50%, the wool yield of sheep decreases by 10-30%, and the egg production of chickens infected with ascariasis and heterokidosis decreases by 15-20% [6]. This, in turn, causes serious economic damage to livestock farms. Echinococcosis is considered one of the serious problems in medicine and veterinary medicine. According to the information of K.I.Abuladze and V.M.Sadikov, echinococcosis in Uzbekistan causes an average loss of 2.5 kg of meat, 0.3 kg of fat, 0.5 kg of liver and lungs from each head of cattle and sheep, as well as 240 g of wool per head of sheep. for every 100 head of lambs obtained from Karakol cows, compared

to healthy cows, the number of lambs decreases by 9 [6]. During such large losses, the cost of treating sick animals further increases the economic losses incurred. In order to prevent such great losses, it is necessary for us to know the mechanism of disease development and its links well. The most effective way to combat helminthiasis is to eliminate the causative agent. In this case, it is considered an effective method for us to eliminate helminth eggs and their intermediate hosts.

Research object.

A number of mollusks, ants, fish, and birds participate in the development of trematodes. The most important for us are aquatic molluscs belonging to the Lymnaidae and Planorbidae families.

The main part.

All trematodes are biohelminths and develop with the participation of the main, intermediate and additional hosts [3]. Among the class of gastropod molluscs (*Gastropoda*) found in the conditions of Uzbekistan, *L. truncatula* from the genus *Lymnae* belonging to the family *Lymnaidae* from lung-breathers (*Pulmonata*) includes *F. hepatica, L. auricularia, L. bactriana, L. subdisjuncta, L. impura, L.ovata, F.gigantica, L.auricularia, O.turkestanica, Anisus ladanensis* and *Planorbis tangitarensis, Planorbis planorbis, Gyraulus chrenbergi, G.gradler* from the *Planorbidae* family have been found to be intermediate hosts of paramphistomata [2]. Animals, birds and humans are the definitive hosts of trematodes. In these organisms, they become sexually mature and live for the rest of their lives. Part or all of the larval stage of trematodes occurs in the organism of intermediate hosts. Aquatic and terrestrial gastropod molluscs are considered the first intermediate hosts of trematodes [3]. The development of trematodes begins with the primary host. After that, they go through the period of embryonic development. In the period of such development, external or internal first-generation larval miracidia with cilia and pigment eyes appear in their eggs. This larva enters the mollusc organism in an active or passive state to undergo the next stage of development, parthenogony [3]. The miracidia that entered the mollusk body sheds its ciliated layer on the surface and the next larval stage turns into a sporocyst (from Greek spora - seed, egg. systos - bag, bubble). A fully formed sporocyst is located in the hemocell and grows from 2-3 mm to 8-10 mm [6]. From its cells, third-generation larval sac-like redia or daughter sporocysts are formed by parthenogenetic method without fertilization [3]. Under favorable conditions, the development of the parasite from miracidia to cercaria takes 2-3 months. One miracidia can produce 1000 cercariae. The cercaria larva is considered the last stage of development in the mollusc organism. Cercariae emerge into the water through the

mantle cavity and transform into invasive larval juveniles within minutes. Adolescaria are spherical in shape, gray at first, then brown or dark brown. They are passively stored in water or attached to plants, rocks and mollusk surfaces. Animals are affected by alimentary route [1].

Conclusion.

It can be concluded that in trematodes, the eggs that have fallen into the external environment from the definitive host organism will definitely pass the next stage of development in the mollusk organism. We can safely say that if we actively fight against molluscs, which are intermediate hosts, we can completely eliminate the disease.

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