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**THE RESULTS OF STUDYING THE MORPHOLOGY AND BIOLOGY OF  
THE CAUSATIVE AGENT OF PARAMPHISTOMATOUS DISEASE IN  
CATTLE**

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**Abstract:**

The article describes the results of studying the morphology and biology of causative agents of paramphistomatous disease in cattle.

**Keywords:** Paramphistomatosis, Liorchis Scotial, Calicophoron calicophorum, Gastrothylax crumenifer, Paramphistomatata, Paramphistomatidae Fischöder, 1901 and Gastrothylacidae Stiles et Goldberger, 1910, Planorbidae

Paramphistomatoses are acute and chronic gastrointestinal trematodes of large and small horned animals, as well as ruminant ungulate herbivorous mammals. The initial preimaginal period of the pathogens passes under the mucous membranes of the anterior part of the small intestine and the rennet of the definitive hosts. Young parasites cause strong catarrhal and hemorrhagic inflammations in these digestive organs and provoke an acute course of the disease.

Death is observed in animals with a high level of infestation. Cases of death and forced slaughter among cattle have been observed for many years. A disease of adult and partially immature paramphistomata. Adult and partially immature paramphistomata cause a chronic course of the disease. The disease is very dangerous.

**Methods of Control**

More than 100 species of trematodes are known. In the territory of Uzbekistan, species belonging to the families Paramphistomatidae Fischöder, 1901 and Gastrothylacidae Stiles et Goldberger, 1910 (including: Liorchis Scotial, Calicophoron calicophorum, Gastrothylax crumenifer) parasitize among large horned animals. In order to determine the morphology of these species, examination of paramphistomatous pathogens collected from the stomachs of Angora cattle infected with paramphistomatous disease in the farm "Panaev Farms" in the Kara Uzak district of the Republic of Karakalpakstan, the farm "Damiyota" in the Nukus district, and the population researches were carried out. Research of the Nukus branch of the Samarkand State

University of Veterinary Medicine, Animal Husbandry and Biotechnology erous both in this stream and in the case of a large number of parasites.

Morphological study of paramphistomatous pathogens collected by helminthological dissection in the internal organs of dead and forcibly slaughtered animals in the educational laboratory of the Department of "Veterinary Medicine and Food Safety", their type, parasitism It was done by identifying the places of breeding, special literature was used in the study of its biology.

In the study of its morphology, the dung sample of black moles was further examined under a microscope. For this, the method of serial washing of feces samples was used. For this, about 10 g of the sample taken from each animal was separated and placed in 150-200 ml glass or plastic cups, about 5-10 ml of water was poured over it and mixed using the bottom of the test tube or the tip of a specially prepared stick. 100-150 ml of water was poured over it and mixed again. In order to isolate the remaining nutrients in the mixture, it was filtered through a mesh made of wire (with a diameter of 0.15-0.20 mm) into another glass.

After that, the mixture was left alone for 5 minutes, and then 3/4 of it was slowly poured out and filtered into another glass using gauze. was held. Water was poured on it again and after 4-5 minutes, its unnecessary part was poured again. This process was repeated until the precipitate in the glass became clear. After 3-4 minutes, the surface of the prepared clear sediment was poured, and the remaining sediment was mixed and placed in a large object bottle and examined under the 7-10 eyepiece and 8 objective of the microscope. Paramphistomatosis causative agent was examined morphologically under a microscope.

### **The Results of the Research**

Samples of litter (dung) from cattle infected with paramphistomatous disease of "Panaev Farms" farm in Karaozak district of the Republic of Karakalpakstan, "Damiy ota" farm in Nukus district, and private individuals of the population were infected with paramphistomatous disease. in order to determine the morphology of the shooters, they were collected and examined by the method of serial washing.

In this case, 10 cattle from "Panaev Farms", 15 from "Damiy Ota", and 20 private cattle infected with paramphistomatosis were collected and examined. Paramphistomatosis at "Panaev Farms" 1 cattle infected with "Damiy Ota", 2 cattle infected with paramphistomatosis at the "Damiy Ota" farm, 4 cattle infected with paramphistomatosis from private cattle of the population were forcibly slaughtered, and the causative agents of paramphistomatosis were collected from their stomachs and the type and morphology were determined. was studied.

According to the results of the study, it was found that the causative agents of paramphistomatosis found in cattle dung samples, namely Liorchis Scotial, Calicophoron calicophorum, Gastrothylax crumenifer, all have a thick muscular body. A strongly developed throat (pharynx) and a mouth sucker are located on the back side.

Body length is from 5-10 mm to 20 mm. Various shapes: cylindrical, pear-shaped, elongated. It is red in color and gives its orange color.

The characteristic of the representatives of Paramphistomata subspecies is that it is located in a bipolar state in the upper part of the head, and the spurs are conical and conical in shape, just like a red mulberry. The shape of *Calicophoron calicophorum* is pear-shaped and conical, 5-20 mm long, 5-6 mm wide, and no teat, ventral teat shifted to the tail. *Liorchis scotial*, *Calicophoron calicophorum*, *Gastrothylax crumenifer* species are found in our conditions. Accordingly, we focused more on their structure.

The above-mentioned parasites are biohelminths, the main hosts are ruminants, and the intermediate hosts are freshwater molluscs belonging to the Planorbidae family. Invasive larva is an adolescent, the period of prepatent development is 3.5-4 months, and the period of parasitism is 2-3 years. Definitive hosts are infected with paramphistomata as a result of ingestion of juveniles with grass and partially with water. The period of maritogony of paramphistomata lasts up to 3-4 months, adults live at least 4-5 years.

### Conclusion

Paramphistomatids have a thick muscular body. The mouth sucker is not developed. The development is considered to be lung molluscs living in water. It has different forms. It develops through two masters. Where freshwater molluscs from the Planorbidae family are present, the risk of disease transmission is high. Since the period of parasitism is longer, the probability of the disease becoming chronic increases.

It was found that some species of the above-mentioned paramphistomatous pathogens do not occur in the Karakalpakstan region due to the worsening of the ecological situation, including the tragedy of the Aral Sea and the drying up of many lakes due to droughts.

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