Age-Related Trematodicidal Diseases in Cattle in the Fergana Region

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Abstract. This paper provides an overview of parasitic diseases that affect animals, including trematodes, which are highly prevalent and create significant economic damage due to helminths. It also discusses the epizootological indicators and techniques for detecting these diseases in cattle belonging to the population of the Fergana region, namely in the Beshariq district of the Fergana canal past gods. Significance of the subject matter. The evolution of the etiological agents of trematodes disorders is highly intricate and proceeds by the process of boss replacement. Thus, the larval development, transfer to the primary (definitive) and intermediate hosts, distribution, degree of animal infection, and respite of these insects are regulated by specific abiotic, biotic, and anthropogenic elements of the region. Abiotic elements encompass the humidity, temperature, oxygen content, chemical composition of soil and water, and the relevant circumstances in intermediate hosts such as water and land molluscs, and biotopes. Biotic variables encompass the environmental attributes that are specific to the intermediate and primary hosts of each parasite. The anthropogenic element refers to the human influence on the exacerbation or abatement of diseases and the dissemination of their causes to different areas.

Introduction.

It should be emphasised that in cases of moderate invasion intensity, F. chronic fascioliosis produced by hepatica and concurrent dicroceliosis are equally harmful even in the absence of intestinal infection, and mortality is extremely uncommon. However, the most severe and pathogenic F.fasciolosis caused by gigantic is regarded as highly hazardous. A study conducted by Salimov over several years has shown that the presence of 50 or more immature fascioles parasitising on cattle liver tissue leads to the death of their host.

It is established that the etiological agent of dicroceliosis remains in the liver, biliary tract, and to some extent the gallbladder of the animal throughout the remainder of its life, resulting in a chronic condition. Within the dendriticum environment, parasites that are nearing maturity are introduced, during which both species spend a period of time residing in the liver tissue of fascioles. In this scenario, fascioles exhibit a lifelong coexistence with dicrocellians within the hepatic bile ducts. Chronic fasciolosis can also be caused by adult fascioles.

Considering the aforementioned, it is crucial to examine the transmission of trematodes in cattle, the present state of the epidemiology of diseases caused by their etiological agents, and strategies for combating and preventing them.

Methods and materials

The objective of the study is to investigate the factors that result in cattle trematodoses, and epizootiology, and enhance strategies to address them. The objectives of the study are to examine the nature of cattle infection with trematodes, to determine the factors that cause the disease, and to devise and implement strategies to counteract them. Geographical location, subject matter, and research approaches. The investigation was conducted in the scientific laboratory of the Department of "Organisation of Parasitology and Veterinary Work" at Samarkand State University of Veterinary Medicine, livestock and biotechnology.

The study focused on cattle belonging to the area population, residing in the Beshariq District of the Fergana region, where the Fergana canal traversed.

The subjects of the investigation are cattle of varying ages and specimens of thistles obtained from them. Cattle muck samples are processed using gelmitoovoscopic techniques, specifically sequential washing.

Results

Within the historical areas of the Fergana canal in the Beshariq district, a significant pathological condition occurred due to the parasitisation of fascioles in the liver tissue. Consequently, two calves were born in the present year, while four adult cattle perished and were forcefully murdered. The species and quantity of trematodes detected in them are documented in Table 1.

Table 1 Beshariq district Fergana canal state of damage to the liver of dead and slaughtered cattle using complete helminthological rupture with trematode triggers

Age of cattle	**Type and number of trematodes found in the liver**		
	F.gigantica	***F.hepatica***	***D.dendriticum***
One year old	38	122	421
One year old	52	212	832
Adult	58	191	1046
Adult	66	188	1376
Adult	88	244	1811
Adult	77	246	1621
Total	**379**	**1203**	**7107**

It is evident from the table that trematodes of three species in the studied cattle - F.hepatica, F.gigantica, and D. - are altered by the interaction with lar. Between 38 and 88 copies of F. young, juvenile of gigantic, measuring approximately 15-25 mm in body length, were detected in their liver tissue, totalling 379 copies. In each analysed bovine, the mean number of this trematode was 63 copies. The liver biliary system of each buffalo analysed exhibited a body length ranging from 28 mm to 34 mm and contained between 122 and 246 copies of adult F.hepatica. The trematode population consisted of 1,203 copies, with an average invasion Intensity (II) of 200 copies. Since hepatica ni is an adult parasite and does not infect young animals, it may be concluded that cattle in this location, namely on the canal banks, are not affected with it.

An estimated 421 to 1811 copies of the causal agent of dicroceliosis were detected in each head of cattle. The total number of DNA copies was 7,107, with an average of 1,184 copies per cow liver. Parasitism by dendriticum has been demonstrated.

In conclusion. The scientific investigation in the Fergana region revealed that age-related trematodes of cattle exhibited a greater invasion intensity in adult animals as compared to one-year-old cattle.

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