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ORIENTOBILHARZIOSIS DISEASE AND PREVENTION

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Abstract
The article analyzes the causes of oriyentobilcharsiosis, seasonality, modern veterinary preparations used in vaccination, and the results of their effectiveness, as well as preventive measures against the disease.

Keywords: Trematode, orientobilharcium, liver, blood vessels, helminth, acemidophen, albeth, proziquantel, acute, chronic, mixed form, intensive.

Introduction

One of the serious diseases observed in animals in the Republic of Karakalpakstan is orientobilharciosis. Due to the severity of the epizootic situation of animal orientobilharciosis in the republic, intensive research on the biology, ecology, epizootology, pathogenesis, and diagnosis of the disease was initiated and specific measures aimed at finding modern methods of treatment and prevention of invasions were adopted. Despite this, the epizootological and epidemiological situation of animal orientobilharciosis in the areas where the invasion is widespread remains quite acute and requires constant monitoring and the implementation of comprehensive preventive measures. In the territory of the Republic, in the months of April-May, July-September, orientobilharciosis is the cause of parasitic diseases of cattle. The orientobilharciosis disease of cattle is widespread in all district territories of the Republic of Karakalpakstan and causes great economic damage in the development of productive animals in livestock breeding. The economic damage caused by orientobilharciosis of cattle consists of the death of infected cattle, forced slaughter, as well as the fact that the recovered cattle retain the characteristic of carrying disease-causing parasites for a long time, their productivity decreases, they are unusable for production and the expenses incurred for leaving and veterinary-sanitary measures.

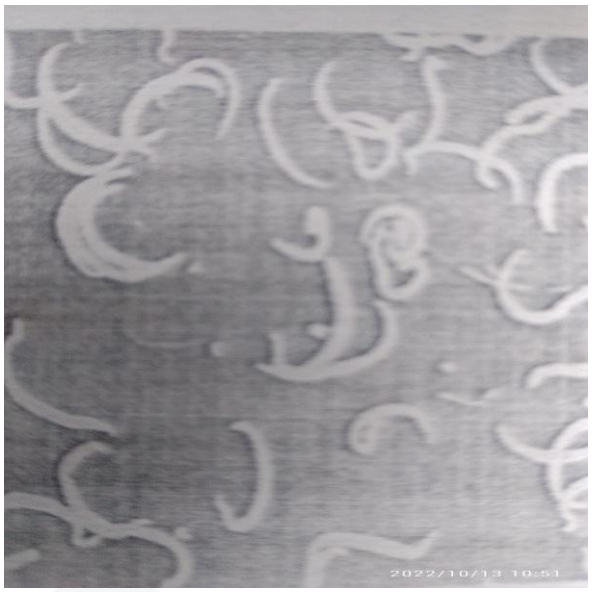
Orientobilharciosis among cattle is widespread in Karakalpakstan and belongs to the group of very dangerous trematodous diseases with a high morbidity rate. In the northern zones of our republic, fasciolosis-orientobilharciosis is found in mixed forms, mainly in the districts of Muynak, Kungirot, Bozatov, Karaozak, Kegeili, Takhtakopir, Chimboy. The incidence rate of orientobilharciosis was high on cattle of farms of animal husbandry in these regions in 1984-2005.. The reason is that almost all the cattle on the farm were raised in the pastures of "Erzhan atao'", "Aqkala" and "Toguz-tore" massifs from April to November. In a number of farms, damage to sheep reached 30.0%, cattle to 65.0%. According to researches, orientobilharciosis parasitizes cattle and sheep of all age groups and in all seasons.

Invasion of the disease was recorded at the maximum in the autumn-winter season. Animal orientobilharciosis epizootics were observed in 1964-1965, 1984-1985, and 2004-2005. During 1984-1985, about 13,000 cattle died in the Republic of Karakalpakstan.

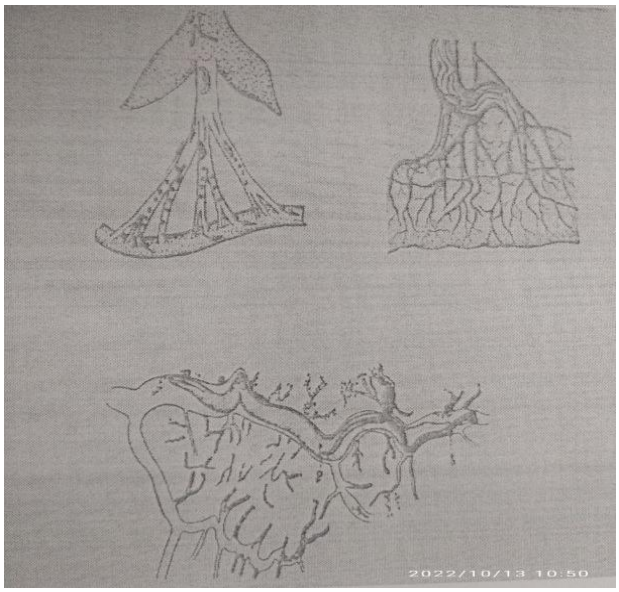
In the years 1984-2005, it was observed that old and young age cattle died in the territory of Karakalpakstan. The incidence rate was one hundred percent. There were also cases where cattle breeding was abandoned due to the prevalence and economic damage of orientobilharciosis, mainly in cattle farms. Also, in the Republic of Karakalpakstan, several hundreds of cattle died in a short period of time due to its sharp current. The live weight of cattle infected with orientobilharciosis is reduced by 20-35%, and all infected cattle are sent to meat factories. The quantity and quality of meat products of all animals decreases. The quality of the meat of the slaughtered animals, the most important parenchymatous organ - the liver, is considered unfit for consumption. It caused great economic damage to livestock farms. During these years, professors of parasitology of our country: Academician of the Faculty of Arts of the Republic of Uzbekistan, PhD Azimov D.A., Professors Oripov A.O., Shakiev E.S. conducted researches and carried out effective work in the prevention and elimination of the disease.

In the Republic of Karakalpakstan, the causative agent of the disease of orientobilharciosis is Orientobilharziya turkestanica, its intermediate hosts are freshwater slime worms Lymnaea auricularia and Lymnaea Pereger molluscs, and the main hosts are livestock. Infestation of animals with larvae begins in June-July, the extent and intensity of infestation reaches the highest level in autumn-winter. Animals are affected by the disease in reservoirs, pastures and lakes. The animals fed in the barn are affected as a result of eating wet and dry feed prepared from infected furnaces. In cattle orientobilharciosis, the small intestine is mainly injured. The mass inside the intestine is a mixture of liquid blood and fibrous membrane. Hemorrhages

are observed in the intestinal mucous membranes. Trematodes can be seen in the blood vessels of the intestines. The size of the liver increases.



Helminths of orientobilharciosis



helminths in liver and blood vessel

Treatment - Animals infected with Orientobilharciosis are treated with the following anthelmintics:

Proziquantel - in large and small horned animals, 1 tab is given orally per 20 kg of live weight; **Droncit** - highly effective, the dose for cattle is 20-25mg/kg, for sheep and goats 15-20mg/kg orally; **Azinox** - 25mg/kg orally for cattle treatment; **Ambilgar** - to cattle at a dose of 0.03-0.04 g/kg orally with an interval of 5 days; **Fuadin** - 0.3 ml intramuscularly twice a day; **Acemidofen**- is administered orally to cattle at a dose of 0.25 g/kg; **Alvet (suspension)** - highly effective, 10 ml per 100 kg of live weight for cattle, 1 ml per 10 kg of live weight, 0.75 ml for sheep and goats per 10 kg, orally, once; **Alvet (granules)** - highly effective, 5 g per 100 kg of live weight for cattle, 3.75 g for sheep and goats per 100 kg, orally, once; **Clozatrem** - the result is effective, at the rate of 1 ml per 10 kg of live weight, once between the muscles and under the skin, no more than 20 ml for large horned cattle, and no more than 10 ml for fat horned cattle;

Preventive measures. Deworming is the most important measure in the fight against Orientobilharciosis, as well as in the fight against all helminthiasis. In unhealthy areas, deworming should be done 3 times a year in spring, autumn and winter, deworming of cattle using effective anthelmintics of the orientobilgarcid spectrum; the first deworming should be carried out in May, the second deworming in September, and the third deworming in December-January. Replacing unhealthy

pastures from June to October; drainage of swampy areas; it is necessary to transfer animals to the system of feeding.

Incidence rate of cattle with fascioliasis and orientobilharciosis and treatment measures in the conditions of the Republic of Karakalpakstan

Table 1

№	Groups of cattle	The number of checked cattle	The result of caprologic checking	Incidence rate %	Checked disease	Treating methods	Preventing and recommendations
Group 1: Cattle (checking for fascioliasis)							
1.	cattle	50	38	76	fascioliasis	Alvet (suspension) 1 ml per 10 kg of live weight	Twice a year, in every 6 months, prophylactic treatment in April-September
Total:-		**50**	**38**	**76**			
Group 2: Cattle (checking for orientobilharciosis)							
2.	cattle	50	14	28	orientobilharciosis	Proziquantel - 1 tab is given orally per 20 kg of live weight	Three times in a year, prophylactic treatment first in May, second in September, third in December-January
Total:		**50**	**14**	**28**			

Research in the Republic of Karakalpakstan, in May-July 2022, helmintocaprological examination was carried out in the population's cattle in the unhealthy areas of Kegeyli, Chimboy, Bozatov districts. The territory of this district is distinguished by the fact that there are more lakes, ponds, pastures, streams and hot artesian taps compared to other regions, and almost all cattle are raised on pastures.

Since the development and spread of the causative agent of orientobilgarciosis depends on molluscs living in fresh water, this disease is widespread in water areas - in places where there are springs, basins, lakes and ponds, streams and marshy pastures. According to the data, the main helminthic disease that causes great economic damage to cattle in the livestock sector, especially the population, personal assistants, farmers and farms, is a mixed form of fascioliasis and orientobilharciosis.

Research Results

Animals were divided into two groups. Analysis work was carried out in two groups for helmintocaprological examination of the diseases of orientobilharciosis and fasciolosis among those in the groups. Samples were taken from these animals for laboratory testing. The obtained samples were examined in the laboratory by helmintocaprological method (Table 1).

In group 1 (fasciolosis) - 50 cattle were sampled and the samples of the cattle were examined by the method of serial washing, 76% of them were found to have fasciola, and 38 of them had fasciolosis.

50 samples were taken from cattle of the **2nd group (orientobilharciosis)**, the method of sequential washing of the cattle samples was checked, and 28 percent of them were found to have orientobilharciola, 14 of them were diagnosed with orientobilharciosis.

According to the results of the analysis, the results of the helminto-ovoscopic examination of animals showed that the incidence of fasciolosis and orientobilharciosis was higher in the cattle of the population. Research has shown that the level of fasciolosis infection of cattle and sheep-goats kept in the pastures of the population is high, that is, the intensity of invasion is high, and the number of fasciolas found in the examined animals was 75-76 percent on average. It was confirmed that there is more incidence of fasciolosis in the regions compared to the disease of orientobilharciosis, and in some cases the two diseases appeared at once in a mixed form. It confirmed that such preventive vaccinations should be carried out on a regular basis.

Conclusions

- In the conditions of the Republic of Karakalpakstan, it has been shown that the level of infection with fasciolosis, i.e., the intensity of invasion, was higher in the cattle of the population grazed on pastures than in the case of orientobilharciosis.
-According to the results of helmintocaprological examination, it was found that the disease is in a mixed form, i.e. 10:1 ratio.
- In the conditions of the Republic of Karakalpakstan, the use of new modern anthelmintics gives effective and good results in the prevention and treatment of helminthic diseases in cattle.
- After deworming, it is necessary to use helmintoovoscopic examinations to determine the results and effectiveness of the anthelmintics used.
- It is recommended to carry out prevention and vaccination of cattle against orientobilharciosis 3 times a year, 1st time in May, 2nd time in September, 3rd time in December-January.

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