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Analyzing the Epizootology of Sheep Dictyokaulosis and Studying the Effectiveness of Some Anthelmintic Drugs

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Abstract: The epizootic condition of dictyokaulosis in sheep is discussed in the paper, and certain anthelmintic preparations are being tested for the treatment of the illness in the farms of the Nurabad district of the Samarkand area.

Keywords: Dictyokaulosis, stongillatosis, farm, invasion, parenchyma, trachy, larva, parasite.

Introduction. The quantity of livestock is growing quickly, but their productivity is still low due to the advantages and helpful support provided to cattle producers by the leadership of our nation. In this regard, veterinary science and practice are tasked with the task of lowering the cost of products through the creation and application of minimally invasive and highly effective methods of preventing, diagnosing, and treating ailments in farmer and farm livestock, as well as enhancing animal productivity and reproductive traits.

Sheep, goats, cattle, camels, and other ruminants, even wild ones, are parasitized by dictyokaulosis in their lungs, alveoli, bronchi, and trachea. Farms that raise sheep are significantly impacted by dictyokaulosis in sheep and goats. Despite being frozen for up to 30 days, invasive larvae are extremely resistant to the environment and can survive for up to 15 days. Humidity boosts the larvae's activity. Following rain, the larvae crawl through the grass in a vertical fashion, which causes a rise in the prevalence of dictyokaulosis in sheep and goats. The larva enters the bronchi through the pulmonary blood vessels and parenchyma, where it continues to grow until it achieves sexual maturity after 1-2 months to 105 days. Between the ages of 5 and 6 months and 1.5 and 2 years, sheep and goats become parasitic. The time of year, the age of the animals, and the local climate all affect how quickly this disease spreads. Sheep and goats in Uzbekistan are afflicted by dictiocaulosis larvae in irrigated regions mostly in the fall and spring, in steppes and pastures in the autumn, and in mountain and subalpine environments in the spring, autumn, and early winter. Cough starts to occur in infected sheep and goats 15–20 days after infection. Later, they grow more slowly, becoming thinner, and their fur thins down. The liquid that comes out of the nose weakens. 10% to 20% of diseased animals may die if left untreated.

Relevance of the research: One of the important issues facing zoo veterinarians is identifying the root causes of parasite infections in sheep and developing a healthy and productive herd of sheep by removing the inadequacies.

Animal respiratory disorders, such as dictiocaulosis in sheep, are at the top of the list of ailments that seriously impede efforts to improve the sheep breed and boost output.

Despite the fact that dictiocaulosis affects sheep often on livestock farms in our Republic, research into the causes, features of its development, and effective strategies for its early diagnosis, treatment, and prevention is still in its infancy.

Қўйлар орасида диктиокаулёз касаллиги оқибатида ҳайвонлар маҳсулдорлигининг кескин пасайиши, репродуктив хусусиятларининг ёмонлашиши ва уларнинг қисир қолиши ҳисобига фермер хўжаликлари катта иқтисодий зарар кўрмоқда.

Purpose of the research. Analysis of sheep dictiocollosis's epizootological state and the beginning of anthelmintic medication testing for both prevention and treatment

Object of research, methods and analysis of obtained results.

The Nurabad area of the Samarkand region is home to the Nomoz farm, Tepaqul cattle farm, and "Hasan Zukhra mountain cattle farm," where our research was done. Sheep dung samples were studied at the University's Department of Parasitology and Veterinary Work to learn more about the epizootology of sheep dictyokaulosis. The rate of sheep naturally contracting dictyocaulosis was therefore estimated to be, on average, 15-20% in the Khasan Zuhra mountain cow farm, 8–10% in the "Nomoz" farm, and 5-7% in the "Tepaqul" cattle farm. Due to the high natural frequency of dictyokaulosis at the "Hasan Zukhra Mountain Livestock" farm, scientific study was conducted there.

15 naturally infected sheep were removed from the "Hasan Zukhra mountain cattle farmother "'s sheep after an analysis of the epizootological process, and they were divided into 3 groups, each with 5 sheep (1 and 2 - experiment, 3 - control).

Five lambs were administered the 10% albendazole medicine orally (per os) in experimental group 1 at a rate of 1 ml per 10 kg live weight of sheep.

In the second experimental group, 5 sheep received intramuscular injections of the medication Leva-100 at a rate of 1 ml per 20 kg live weight of the sheep.

On the third control group, there was no medication given.

Dung samples from the experimental and control sheep were collected on the seventh, fifteenth, and thirty-first days of the experiment and evaluated in a lab setting.

Stool samples were taken to the lab and placed in different containers for the approved Berman-Orlov method of analysis. According to the test results, in sheep of experimental group 1 (Albendazole 10% drug was taken orally (per os) in the amount of 1 ml per 10 kg of live weight of sheep), it was discovered that the effectiveness of the drug on helminth larvae was 60%, in sheep of experimental group 2 (20 kg of sheep from Leva - 100 drug it was discovered that the effectiveness of the drug on helminth larvae was 80%, and 3- control sheep were treated with special drugs due to (table 1).

Table 1. Results of examination of stool samples in laboratory conditions

	Group	Sheep tag No	Before the experiment	Drug name, amount	Checked days			Efficiency (%)
					5.11	15.11	30 11	
1	1-experiment	201	15-20%	Albendazole 10% 1 ml per os per 10 kg of body weight	16	10	8	60% overall
2		202			15	9	6	
3		203			18	11	7	
4		204			16	10	-	
5		205			17	12	-	
6	2-experiment	206	15-20 %	Leva - 100 20 kg body weight 1.0 ml intramuscularly	17	10	5	80% overall
7		207			16	11	-	
8		208			18	12	-	
9		209			17	11	-	
10		210			18	12	-	
11	3-	211	15-20%	The drug was	18	22	24	

12	experiment	212		not given	17	21	23	--
13		213			19	23	25	
14		214			19	22	24	
15		215			20	21	23	

Conclusion: The study's findings revealed that the drug's efficiency against helminth larvae was 60% in experimental group 1 and 80% in experimental group 2.

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