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Research Article

EXPERIMENTAL AND COMMISSION TESTS OF EFFICIENCY OF THE NEW DRUG FENBENTAL GRANULATE 10% IN CALVES NEOASCARIDOSIS

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Abstract:

In the North Caucasus, neoascariidosis of calves (among nematodosis of the digestive tract of young cattle) is a poorly understood disease. However, this pathology in calves is found with an invasion extensity of 6 to 28%, which requires the development of new methods of therapy and prevention using new domestic complex preparations. In experiments with group prescribing, the new multidisperse anthelmintic drug Fenbental granulate 10% at a dose of 20 mg / kg body weight, mixed with food 1: 100, showed EE -87, 50% and IE - 91, 10% and at a dose of 30 mg / kg body weight, mixed with food 1: 100, showed EE -100% and IE - 100% is recommended as an effective of means neoascariidosis calves. Fenbental granulate 10% of at a dose of 30 mg / kg body weight during commission tests was showed EE 90, 00% with an IE of 92,40%. Albefen granulate 10% experimentally and in commission experiments is a highly effective drug and is recommended for the treatment and prevention of calves neoascariidosis by individual and group methods of with food.

Keywords: calves; invasion; neoascariidosis, Fenbental granulate 10%; extensefficiency; Intensefficiency.

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INTRODUCTION:

In the North Caucasus, neoascariasis of calves (among nematodes of the digestive tract of young cattle) is a poorly understood disease. However, according to many authors, this pathology in calves is found with an invasion intensity of 6 to 28% [1, 4, 5, 7, 10, 13, 15, 16, 17]¹. In calves stationary content, regardless of breed, neoascariasis appears enzootically with EI 5–12% [2, 4, 7, 8, 9, 16, 17], in calves with pasture content with EI 8–17% [5, 8, 10], which requires the development of new methods of therapy and prevention using new domestic complex preparations. In this regard, the development of new complex drugs for the treatment and prevention of neoascariasis in calves and other intestinal nematodes is an important task [1, 2, 3, 4, 5, ..., 10 - 17]². The goal is to check the anthelmintic activity of the drug Fenbental granulate 10% in calves of neoascariasis of group method.

MATERIALS AND METHODS:

Experiments to test the anthelmintic activity of the drug Fenbental granulate 10% in neoascariasis of calves were conducted on 24 heads. Experimental and control of calves (n = 24) were divided into 3 groups of 8 animals each. Calves 1 group (n = 8), with invasion of neoascariasis, was given the anthelmintic drug Fenbental granulate 10% at a dose of 20 mg / kg body weight, group 2 of calves (n = 8) at a dose of 30 mg / kg body weight, once, also by group method. Calves of the 3rd group (n = 8) served as a control, as infested with neoascariasis, not receiving a new anthelmintic drug Fenbental granulate 10% with food. According to the scheme of

the experiment, after 3, 5, 7, 10 and 15 days after a single injection of the new drug, Fenbental granulate 10%, the feces of all individuals underwent coproscopy [1-7]. Commission tests of Albendazole granulate 10% were carried out on 50 of calves. The results of experimental testing of the anthelmintic composition Fenbental granulate 10% with neoascariasis of calves were subjected to statistical processing using the "Biometrics" program.

RESULTS:

New anthelmintic drug Fenbental granulate 10% per 1 g of powder includes: fenbendazole 250 mg, albendazole 200 mg, copper chelate 100 mg, dry bentonite 450 mg. In the 1st experimental group (n = 8) with neoascariasis of calves administered with the group method of the new drug Fenbental granulate 10% at a dose of 20 mg / kg of body weight with food 1: 100, showed a rather high effectiveness - 87, 50% and intensity (IE) - 91, 10% (Table 1). At the same time, in the 2nd group of calves (n = 8) with neoascariasis of calves, a new anthelmintic composition Fenbental granulate 10% in a dose of 30 mg / kg of body weight showed effectiveness 100% with intensity (IE) - 100%. This dosage of the new composition Fenbental granulate 10% should be recognized as an effective therapeutic dose (Table 1). Calves of the 3rd group (invasive control, n = 8) remained infected with neoascariasis when detecting 48,0-52,4 ekz. of eggs and larvae in 5 g of feces.

Table 1- Efficacy anthelmintic composition of Fenbental granulate 10% in neoscaridosis of calves

Group	The number of infected neoscaridos is of calves	The number of free from neoscaridosis of calves after treatment	EE, %	The number of eggs and larvae of in 5 g of feces calves, ekz.		IE, %
				Before therapy	After therapy	
1	8	7	87,50	42,6±3,8	3,8±0,7	91,10
2	8	8	100	44,3±4,1	-	100
3	8	0	0	48,0±5,3	52,4±5,5	0

The commission tests amounted extensefficiency of the new anthelmintic composition Fenbental granulate 10% at a dose of 30 mg / kg of body weight against in of neoscaridosis calves during to 90,00% with intensefficiency (IE) – 92,40% (Table 2).

Table 2- Efficacy of Fenbental granulate 10% anthelmintic composition in neoscaridosis of calves at commission tests (according to coprolaroscopy)

Group	The number of infected lambs	The number of free from nematodes of lambs after treatment	EE, %	The number of eggs and larvae of nematodes in 5 g of feces of lambs, ekz.		IE, %
				Before therapy	After therapy	
1	50	45	90,00	46,2±4,3	3,5±0,6	92,40
2	50	0	0	48,4±4,6	50,7±4,9	0

Thus, the complex anthelmintic compound Fenbental granulate 10% in a dose of 30 mg / kg body weight, mixed with 1:100 feed experimentally, in commission experiments is a highly effective drug and is recommended for the treatment and prevention in neoscaridosis of calves for group administration with feed.

DISCUSSION:

The test results of the new anthelmintic drug Fenbental granulate 10% against the in neoscaridosis of calves were obtained by us for the first time. New data were obtained on the therapeutic efficacy of Fenbental granulate 10% at a dose of 30 mg / kg of body weight of calves. At the same time, information on the need to develop methods for group treatment and prevention of in neoscaridosis of calves is consistent with the positions of many well-known authors [1,2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15,16,17]³.

CONCLUSION:

For the new anthelmintic drug Fenbental granulate 10%, in the neoscaridosis of calves, a dose of 30 mg/ kg of body weight is therapeutically effective.

During the experiments, Fenbental granulate 10% at a dose of 30 mg / kg body weight in a mixture of 1:100 with food once showed a 85,2-100% effect in neoscaridosis of calves by the group method. The complex anthelmintic compound Fenbental granulate 10% in a dose of 30 mg / kg body weight, mixed with 1:100 feed experimentally, in commission and production experiments is a highly effective drug and is recommended for the treatment and prevention of in neoscaridosis of calves for group administration of with feed.

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