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# THE OF RESULTS THE TEST NEW MULTIDISPERSE ANTHELMINTIC COMPOSITION PRAZINOX AT WITH MONO-AND OF MIXTINVASION OF ECHINOCOCCOSIS AND MULTICEPTOSIS DOGS

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**Abstract:**

*In the subjects of the Russian Federation, echinococcosis and multiceptosis are the most common cestodosis and are found in dogs with an EI of 100%. The goal is to study their distribution in dogs and to test the effectiveness of the new multidisperse anthelmintic composition Prazinox at with mixed invasion of cestodes E. granulosus and M. multiceps. Studies have shown that intestinal teniidoses in dogs in the form of mono- and mixed invasions is widespread with at total EI of 100%. Associative invasion in dogs caused by intestinal cestodes of E. granulosus and M. multiceps was manifested with EI = 50.0% with an intensity of invasion, respectively, 388.0 ± 14.5 and 3.1 ± 0.4 ekz./head. In the group of dogs infected with the mixed invasion of E. granulosus and M. multiceps , the new multidisperse anthelmintic composition Prazinox at a dose of 20 mg / kg body weight had EE and IE - 100%. At the same time, on the 5th day the deworming of eggs suborder Taeniata in feces did not detect. This dosage of new multidisperse anthelmintic composition Prazinox should be recognized as an effective therapeutic dose.*

***Key words:*** *dogs; Mixtinvasia; cestodes, drug; new multidisperse anthelmintic composition Prazinox; extensefficiency.*

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## INTRODUCTION:

In the subjects of the Russian Federation, echinococcosis and multiceptosis, etc. are the most common cestodosis and occur in dogs with an EI of 70-100%**,** which requires the development of new multidisperse anthelmintic composition Prazinox for the treatment and prevention of invasions (Zalikhanov et al., 2018; Kabardiev et al., 2017; Shakhbiev Kh. et al., 2013; Gazimagomedov et al., 2016; Begieva, 2016; Karpuschenko et al., 2016; Atabieva et al., 2012; Eldarova et al., 2015) [1, 2, 3, 4,…,.. 17].. In young dog populations, teniidoses (echinococcosis and multiceptosis) have an epizootic manifestation with the formation of mixed invasions (Uspensky et al., 2014; Magomedov et al., 2015; Thakakhova et al., 2017; Mutaev et al., 2014; Bittirova, 2016; Akieva et al., 2012; Shikhalieva et al., 2010; Shakhbiev Kh. et al., 2016; Kabardiev et al., 2017) [1, 2, 3, 4,…,.. 17].

## MATERIALS AND METHODS:

The spread of mono- and mixed invasions of dog teniidoses was determined in 2015-2018. by the method of full helminthological autopsy of according of K.I. Scriabin and the inspection the corpses of 30 dogs of different ages. An experiment to test the anthelmintic activity of a new multidisperse anthelmintic composition Prazinox in the at of mixed intestinal cestodosis (Echinococcus granulosus and Multiceps multiceps) of was performed on 15 dogs. Experimental (n = 10) and control dogs (n = 5) were divided into 3 groups. Dogs of the 1st group (n = 5) infected with mixed invasion of Echinococcus granulosus and Multiceps multiceps received a new multidisperse anthelmintic composition Prazinox at a dose of 15 mg / kg body weight with minced meat, dogs of the 2nd group (n = 5) - of dose of 20 mg / kg body weight, once. The dogs of the 3rd group (n = 5) served as infected controls, they did not receive Prazinox. According to the plan of the experiment, after 3, 5, 7, 10 and 15 days after a single injection of the new multi-dispersed anthelmintic composition Prazinox, the excrement of all dogs was subjected to coproovoscopy [6].

The results of experimental tests on dogs new multidisperse anthelmintic compositions Prazinox at with mixed invasion of cestodes (Echinococcus granulosus and Multiceps multiceps) were subjected to statistical processing using the program "Biometrics".

## RESULTS:

**Spread of mono- and mixed invasions teniidoses dog**

Research found that intestinal dog teniidoses (Echinococcosis and Multiceptosis) in the form of mono- and mixed invasions are widespread with a EI of 100% (Table 1).

Monoinvasion of echinococcosis in dogs was registered with EI = 30.0% and II = 476,4±19,2 ekz./head, and monoinvasion of multiceptosis, respectively, with EI - 20,0% and II - 3,6±0,5 ekz. / head. At autopsy of in dogs of the small intestine, the highest quantitative values of EI were for mixed invasions of the family Taeniidae, but with low values of cestodes intensity, which confirms the hypothesis of interspecific competition between pp. Echinococcus and Multiceps. Mixinvasia "Echinococcosis + multiceptosis" was registered with EI = 50,0%, and II E. granulosus 388.0 ± 14.5 ekz./head, M. multiceps - 3,1±0,4 ekz./head (Table 1).

Table 1 - Distribution of mono- and mixed invasions of echinococcosis and multiceptosis of canis, n = 30

| № | Cestodose dogs | Researcher dogs | Invazed dogs | EI, % | II, ekz./ind. |
|---|---|---|---|---|---|
| 1 | Echinococcosis | - | 9 | 30,0 | 476,4±19,2 |
| 2 | Multiceptosis | - | 6 | 20,0 | 3,6±0,5 |
| 3 | Echinococcosis + Multiceptosis | - | 15 | 50,0 | 388,0±14,5<br>3,1±0,4 |
| 4 | Total investigated dogs | 30 | 30 | 100 | - |

**Efficacy of the new multidisperse anthelmintic composition Prazinox with associative invasions of cestodes *Echinococcus granulosus* and *Multiceps multiceps* in dogs**

The new multidisperse anthelmintic composition Prazinox per 1 g of powder includes: praziquantel 250 mg, oxfendazole 250 mg, albendazole 150 mg, copper chelate 100 mg, dry bentonite 250 mg. In the 1st experimental group of dogs (n = 5) infected with mixed invasion of intestinal cestodes (*Echinococcus granulosus* and *Multiceps multiceps*) mixed with minced meat, the new multidisperse anthelmintic composition Prazinox at a dose of 15 mg / kg body weight showed EE - 80, 0% and IE - 94.2% (Table 2). In the 2nd group of dogs (n = 5) infected with the mixed invasion of E. granulosus and M. multiceps, the Prazinox at a dose of 20 mg / kg body weight had EE and IE - 100%. At the same time, on the 5th day the deworming of eggs suborder Taeniata in feces did not detect (Table 2). This dosage of new multidisperse anthelmintic composition Prazinox should be recognized as an effective therapeutic dose (Table 2).

Group 3 dogs (invasive control, n = 5) remained infected with intestinal cestodes when detecting 91,3-93,5 ekz. of eggs in 5 g feces.

Table 2 - Efficacy of the new multidisperse anthelmintic composition Prazinox with associative invasions of cestodes *E. granulosus* and *M. multiceps* in dogs

| Group | The number of infected dogs | The number of free from cestodes of dogs after treatment | EE, % | Number of eggs of cestodes y dogs per 5 g feces, ekz. | | IE, % |
|---|---|---|---|---|---|---|
| | | | | Before therapy | After therapy | |
| 1 | 5 | 4 | 80,0 | 89,6±7,3 | 5,2±0,7 | 94,2 |
| 2 | 5 | 5 | 100 | 87,4±7,0 | - | 100 |
| 3 | 5 | 0 | 0 | 91,3±8,2 | 93,5±8,4 | 0 |

Thus, the new multidisperse anthelmintic composition Prazinox at a dose of 20 mg / kg of body weight, mixed with minced meat, is highly effective in experiments and is recommended for the treatment and prevention of associative invasions of intestinal cestodes Echinococcus granulosus and Multiceps multiceps of in dogs.

Results of studying the distribution teniidoses of canine (echinococcosis and multiceptosis) in the form of mono- and mixed invasion and the effectiveness of the new multidisperse anthelmintic Prazinox against intestinal cestodosis of dogs were obtained for the first time. New data have also been obtained on the epizootological of echinococcosis and multiceptosis in dogs, on the therapeutic efficacy of Prazinox at a dose of 20 mg / kg of body weight in mixed invasion.

## DISCUSSION:

At the same time, information on the species composition of cestodes and the need to develop new methods for the treatment and prevention of mixed invasions of echinococcosis and multiceptosis in dogs is consistent with the opinion of many well-known authors [1, 2, 3, 4,…,.. 17].

## CONCLUSION:

Research found that Echinococcosis and Multiceptosis in the form of mono- and mixed invasions are widespread with a total EI of 100%. Associative invasion caused by the intestinal cestode (*Echinococcus granulosus* and *Multiceps multiceps*) was observed mainly with EI = 50,0% with an intensity of 388,0±14,5; 3,1±0,4 ekz./head. New multidisperse anthelmintic composition Prazinox at a dose of 20 mg / kg of body weight, mixed with minced meat, is highly effective in experiments and is recommended for the treatment and prevention of mixtinvasions of *E. granulosus* and *M. multiceps* in the organisms' dogs.

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