

HELMINTHOSES OF GOATS BREEDING AT BELGRADE AREA

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Abstract: In aim of control parasitic infection of goat we started to sistematic parasitological examination of it. At Belgrade area we examined flocks of goats originated from 23 vilages from city districts Mladenovac, Lazarevac, Obrenovac, Grocka, Zemun, Surčin, Palilula, Voždovac and Zvezdara. Using standart coprological methods we examined 221 faecal samples. At same time, with necropsy we examined 67 animals. We found the following helminthes species: *Dicrocoelium dendriticum* (83,25%), *Moniezia expansa* (52,36%), *Echinococcus granulosus* (cyst) (83,25%), *Trichostrongylus axei* (79,82%), *T.colubriformis* (69,57%), *T. capricola* (62,85%), *Ostertagia circumcincta* (65,23%), *O. ostertagi* (23,33%), *Nematodirus spathiger* (83,25%), *N. filicolis* (43,31%), *Hameonchus contortus* (58,95%), *Skrjabinema caprae* (13,28%), *Chabertia ovina* (44,14%), *Oesophagostomum venulosum* (28,39%), and *Dictyocaulus filaria* (56,45%)

Key words: goats, helminthes, Belgrade

Introduction

Way of breeding usualy at shepeng had prerequisite to a lot of infections including parasitoses (*Quesada et al., 1990; Ashraf and Nepote 1989; Rattray, 2003*). Pasture breeding make possible contact within sheep and eggs, larvar stages and intermediate host of *parasites* (*Fake,1990; Barger 1994; Pavlović et al.1995*). Those induce that there are no one small ruminants without parasites (*Smith,1990; Jovanović et al.1991; Vujić et al.1991*). Negative influence of parasitic infection reflected throught lost of weight and decrement quantum of lactation (*Mishra,1991; Luginbuhl,1998; Kristmundsson and Richter, 2000*).

No study had previously made to determine endoparasites fauna of goats in Serbia. Ever, examination of goats parasitoses were only sporadically performed and we had only afew paper about it (*Vujić and Bošković,1981; Ilić,1990; Vujić et al.1991; Ilić et al.1991; Pavlović et al.1995*).

From these reasons in mind, we started with examination of parasitic fauna of goats at various parts of Serbia. At first, we started at Belgrade area, during 2003, and at our paper we presented results obtained in period 2009-2010.

Materials and Methods

During our examination we examined flocks of goats originated from 23 vilages from city districts Mladenovac, Lazarevac, Obrenovac, Grocka, Zemun, Surčin, Palilula, Vozdovac and Zvezdara. Using standart coprological methods we examined 221 faecal samples (Pavlović and Anđelić-Buzadžić, 2010b). A total of 21 goats and lambs were examined in the slaughter house at Vojka. After slaughter we collected trachea, lung, heart, complete gastrointestinal tract, liver, kidney and urinary bladder and examined it at laboratory of Scientific Veterinary Institute. The intestine and the other organs were slit opened and visible helminths removed. Intestine contents were washing out and washing were scanned over a sieve, mesh aperture 150 µm, under jet water and the retained material examined small quantities at a time. Found parasites either fixing in 10% formalin, were mounted in lactofenol for identification, and mounted in Canada balsam. The determination was done by keys given by Dunn (1978).

Results and Discussion

During examination we recorded 1 trematoda species, 2 cestoda species (one adult and one cystic form) and 12 species of nematode. Poliparasitismus and infection with gastrointestinal helminths were established at all examined animals. Numerous parasites were found at small intestine, followed by abomasus and at colon.

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Most prevalence species of nematode are *Trichostrongylus* and *Ostertagia* species. Although most of the gastro-intestinal species appear to follow this general pattern of seasonal distribution, some variations in intensively and duration of these characteristics with different worm species occurred. Thus with *Trichostrongylus* and *Ostertagia* species infection at mature goats the spring peak was more pronounced than the autumn infection (Pavlović, 2009c,d; Pavlović et al., 2009b; 2010a,b). Prevalence of *Moniezia expansa*, *Dicrocoelium dendriticum* and *Dictyocaulus filaria* were similar at other parts of Serbia where we examined parasites of small ruminants (Pavlović et al., 2003, 2008, 2010a).

Generally speaking the goat's parasites represent a global problem. The countries of Magreb (Morocco, Tunisia and Algeria), Middle East and Africa are in permanent battle with parasitic infections and losses ensued by them (*Quesada et al., 1990, Fakae, 1990, Wamae and Ihiga, 1990*). Same situation are at Mediterranean basin where especially problem present *Echinococcosis/Hydatidosis* which occurred on goats and sheep at rate of 70-90% (*Pavlović and Ivanović, 2006; Pavlović et al, 2011a*). Goat helnthoses had a worldwide distribution. We had a reports from Island (*Kristmundsson and Richter, 2000*) to NewZeland (*Rattray, 2003*), from Pakistan (*Bilqees, 1988*) and India (*Mishra, 1991*), to USA (*Ashraf and Nepote, 1990*).

The data on harmful before and effect of parasitic infections on the goat performance undoubtedly show that in the anthelmint conditions of rearing high performance animals it is necessary to conduct the measures of prophylactic treatment (*Barger et al., 1994; Zajac and Gipson, 2000; Chartier et al., 2000; Kaplan et al. 2004; Shaik et al. 2004; Pavlović et al., 2009a*).

Conclusion

However, since the parasitic infections are in majority sub clinical. The attention has not been paid to this problem in Serbia. The prophylactic treatment is not conducted in the majority of flocks or it is only partially performed what can be seen by the records from the slaughter line and from production results. In aim of introducing parasites fauna of goats and prepare measure to its control we must to continue our examination. This would be the only way to obtain better product results, characteristics and quality of goats and lambs meat in ecological breeding condition

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Helmintoze koza sa područja Beograda

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Rezime

U cilju kontrole parazitskih infekcija koza potrebno je utvrditi vrste i distribuciju parazita. U radu dajemo prikaz helminata koza sa područja Beograda. Istraživanja su vršena u 23 sela na području opština Mladenovac, Lazarevac,

Obrenovac, Grocka, Zemun, Surčin, Palilula, Voždovac i Zvezdara. Primenom standardnih koproloških metoda pregledan je 221 uzorak izmeta. Isto tako, ispitali za obdukciju 67 životinja. Ustanovljene su sledeće vrste helminata: *Dicrocoelium dendriticum* (83,25%), *Moniezia expansa* (52,36%), *Echinococcus granulosus* (cyst) (83,25%), *Trichostrongylus axei* (79,82%), *T. colubriformis* (69,57%), *T. capricola* (62,85%), *Ostertagia circumcincta* (65,23%), *O. ostertagi* (23,33%), *Nematodirus spathiger* (83,25%), *N. filicilis* (43,31%), *Hameonchus contortus* (58,95%), *Skrjabinema caprae* (13,28%), *Chabertia ovina* (44,14%), *Oesophagostomum venulosum* (28,39%), i *Dictyocaulus filaria* (56,45%)

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