

## Endoparasitic Fauna Of Dogs In Pozarevac

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**Abstract.** The results obtained in our study indicate that helminthoses dogs are a big problem in the territory of Pozarevac, which is the vulnerability of people in these areas, is significant. At owner dogs were established *Ancylostomidae spp.*(39.21%), followed by *Trichuris vulpis* (24.43%), *Taeniidae spp.* (17.45%) and *Toxocara canis* (12.11%), but prevalence of *Dipylidium caninum*, *Strongyloides stercoralis* and *Isospora canis* was low level. At non-owner (stray) dogs the presence of eggs of *Toxocara canis* and *Ancylostomidae spp.* were established in 70% of samples, eggs of *Taenia spp.* in 50%, *Dipylidium caninum* in 30%, *Trichuris vulpis* and *Strongyloides stercoralis* in a 20% and *Isospora canis* oocysts in 10% of the samples.

**Keywords:** dogs, endoparasites, Pozarevac

### INTRODUCTION

Dogs are the largest population of pet animals in Pozarevac. Over the last decade it is evident that a permanent increase in their numbers as pets and stray (usually former pets). In close cohabitation of stray dogs and pets in the immediate environment of people and there is ongoing contamination of public areas with dog feces. Apart from its look and smell unpleasant, dog faeces are using special epidemiological risk (Dubinski,1998, Elaine et.al.2011) At the same emphasis as the primary contaminants placed on ownership of dogs by irresponsible owners let the public space without a leash and baskets are identical to the danger, and fecal contamination of large parks, the majority of dogs come very welcome (Jansen, 1993, Pavlović et al.1996,1999,2009)

Commenting on the results of parasitological examination of green spaces in urban areas around the world, we see that the contamination of zoonotic parasites makes a global problem (Laborde 1980, Pavlović et al.2006, Roddie et al,2007, Tylkowska et al.2010, Zibaei et al.2010) Apart from its look and smell unpleasant, dog faeces are using special epidemiological risk. The dogs are great hosts and holders of many types of zoonotic parasites - *Toxocara canis*, *Ancylostomidae spp.*, *Echinococcus granulosus*, and others whose eggs or developing forms they eliminate feces in the external environment (Le Nobel et al.2004, Chiodo et al.2006).

Based on the knowledge aim of this study was to determine parasites fauna of owner and non-owner dogs in Pozarevac during 2011.

### MATERIAL AND METHODS

To determine parasitofauna of the owner and non-owner dogs placed for adoption made in Pozarevac during 2011, we were prepared coprological examination of those animals. The

faeces of stray dogs were collected from boxes in asylum. In total we examined 95 samples of owner and 150 faeces of stray animals.

Material was examined using the flotation methods (Euseby,1981, Pavlović and Anđelić-Buzadžić,2010). Determination of parasite eggs was made on the basis of their morphological characteristics according to the keys given by Euseby (1981)

## RESULTS AND DISCUSSION

At owner dogs highest prevalence was *Ancylostomidae spp.*(39.21%), followed by *Trichuris vulpis* (24.43%), *Taeniidae spp.* (17.45%) and *Toxocara canis* (12.11%), but prevalence of *Dipylidium caninum*, *Strongyloides stercoralis* and *Isospora canis* was low level.

At non-owner (stray) dogs the presence of eggs of *Toxocara canis* and *Ancylostomidae spp.*were established in 70% of samples, eggs of *Taenia spp.* in 50%, *Dipylidium caninum* in 30%, *Trichuris vulpis* and *Strongyloides stercoralis* in a 20% and *Isospora canis* oocysts in 10% of the samples.

Those result were similarly to results of examination performed by Tešić (1997) and Stokić-Nikolić et al. (2008) who examined dogs parasites in Pozarevac.

Studies of contamination of green areas and parks in Pozarevac determine the contamination of eggs of *Toxocara canis*, *Ancylostomidae spp.* and *Dipylidium caninum* at all sites tested and the presence of *Trichuris vulpis* to 75% of the sites. At the same time in the pools of sand in the kindergarten was established contamination of *T.canis* eggs was less pronounced in all kindergartens. Results were similarly like results of examination performed in 2002 (Pavlovic et al.2003).

A steady increase in the number of dogs, stray animals and pets, presents a serious sanitary-epidemiological and environmental problem in urban areas in the world. In fact, dogs are carriers and hosts of a large number of species of zoonotic parasites whose eggs or developing forms they eliminate with feces in the external environment. This leads to contamination of green areas which may become the primary sites of human infection.If we know the importance of established epidemiological parasites, especially the dominant species - *Toxocara canis* and *Ancylostomidae spp.* Infection of humans occurs by oral intake embryonated eggs or larvae of parasites (Dubinski,1998, Pavlović, 2006, Elaine et al.2011).

*T.canis* in humans is entered in the intestines of eggs hatch the larvae begin to migrate through the bloodstream and during migration they stop in the lungs, brain, heart, eyes and other organs causing significant disease (a disease known as visceral larva migrans syndrome). The disease occurs more easily and more severe and possibly death .Easier form manifests with cutaneous and lymphadenopathy. More severe form, which most commonly encountered in children is characterized by cough, chronic obstructive bronchitis, asthma, allergic asthma, relapsing eosinophilic pneumonia, high temperatures, increased spleen and liver, meningitis, encephalitis, epilepsy, convulsions, abdominal disorders, nausea, anorexia, myocarditis and cardiomyopathy. Human toxocariasis was worldwide problem and numerous papers confirmed that state (Dubinski,1998)

Infection of humans with *Ancylostomida spp.* occur in dogs and larvae penetrate the skin and by ingestion. Disease is expressed in the skin changes - redness, swelling, inflammation can often be affected and surrounding lymph nodes. More severe cases of dermatitis are also possible as fatal cases of the syndrome known as coetaneous larva migrans have been reported (Pavlović,2006)

## CONCLUSIONS

The results obtained in our study indicate that helminthoses dogs are a big problem in the territory of Pozarevac, which is the vulnerability of people in these areas, is significant. In order to combat parasites, we believe that the necessary planning, continuously implement a systematic dehelminthization dogs at least twice a year on the whole territory of the study, with occasional control efficiency dehelminthization implemented. This applies to non-owner and the ownership of dogs that are primary areas where contaminants are performed (parks green surface).

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