

INCIDENCE OF *ANCYLOSTOMA CANINUM* (ERCOLANI, 1859) IN THE DOMESTIC CAT

In the course of examinations of feces of cats delivered by the national enterprise VELAZ for biological experiments we could repeatedly find eggs of nematoda in feces from most of them, the greatest number of eggs being in various stages of segmentation (2–16 blastomeres). In a short time the eggs quickly matured and free very mobile larvae could be found in the feces in a few hours.

During helminthological dissection of cats adult dog hookworms beside their eggs could be found in the mucous membrane of various parts of the small intestine.

A total of 26 cats were dissected in this way. Out of this number hookworms were found in 21 cats, the immune rate being thus 80 p.c. Invasion intensity fluctuated between 1–21 hookworms in dissected animals. In conformity with hookworm findings in the small intestine eggs of this same species were always found in feces of the corresponding animal. In one case only when a single specimen of male dog hookworm was found in the intestine the coprological examination proved to be negative.

The hookworms were found in cats of both sexes in the same proportion and also the age of the animals did not exercise any influence upon their incidence.

The size of eggs fluctuated between 51–72 by 36–42 μ being somewhat less than the proportions given in literature. The most frequent size was $66 \times 39 \mu$. The size of larvae freed from the eggs measured $240 \times 16 \mu$ in average. (From among other nematodes only the species *Toxocara cati* Schrank was found in the small intestine occurring in 65 per cent of animals.)

Findings of *Ancylostoma caninum* Ercol. in Czechoslovakia in silver fox were recorded by BURIAN (Thesis at the Veterinary Faculty of the School of Agriculture and Forestry, Brno, 1950), in five wild cats caught in Slovakia by SVATOŠ (Collection of Papers of the College of Agriculture and Forestry, Brno, Series B 11/546: 307–314, 1963 and Zoological Papers 12:

173–175, 1963) and by PROKOPIČ (Čs. Parasit. 12: 207–226, 1965) in two wild cats and one wolf of the Prague Zoological Garden. Occurrence of *Ancylostoma caninum* Ercol. in the domestic cat was not yet registered in Czechoslovakia.

All examined animals originated from environments of the towns Trnava and Nitra that is from southwestern of Slovakia.

This relatively high occurrence of the dog hookworm in cats from the above-mentioned region might in some cases call forth a sort of dermal disease in man that is the so-called creeping eruption (larva migrans) caused by larvae of the hookworm penetrating through the skin. It is from the eggs leaving the bodies of animals with feces that larvae develop in sufficiently humid medium and invade a new host. In case the new host happens to be a human being larvae penetrating into the subcutaneous connective tissues leave reddish zones in places where minute corridors are tunnelled by them. These zones are very itchy being accompanied by small pustules. Larvae perish in most cases about the fifth day of their existence because they are unable to complete their life cycle in the human body the dermal changes disappearing in 2–3 days afterwards. Sometimes, however, secondary infections may occur. In some cases the skin affection may be accompanied by transient lung infiltrations, blood picture showing eosinophilic capacity.

The authors are of the opinion that many localities of southwest Slovakia are thanks to favourable conditions that is relatively warm climate and humidity of soil a convenient ambient for the development of the dog hookworm and the occurrence of this kind of skin diseases in man might be expected there.

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