

LETTER TO THE EDITOR

RECOVERING OF *Toxocara canis* EGGS FROM SAMPLES OF EXPERIMENTALLY CONTAMINATED SOIL

São Paulo, October 20, 2008

Dear Sir

Human infections by *Toxocara canis* or *Toxocara cati* larvae are frequent and have a cosmopolitan distribution^{8,10} resulting, sometimes, in the occurrence of visceral larva migrans syndrome. Ingestion of embryonated *Toxocara* eggs, present in the superficial layers of the soil, represents the most important way for human infection by these ascarids¹. Therefore, contact with contaminated soil is considered an important risk factor for the occurrence of this particular zoonosis^{1,8,10}.

Several studies carried out worldwide showed soil contamination by *Toxocara* eggs with variable positivity rates¹. In Brazil surveys performed in several areas also reported the frequent presence of *Toxocara* eggs in superficial soil samples of public places^{3,4,5,6,7,9} and some found seasonal variations in soil contamination^{4,9}.

There are reports pointing out better evolution rates for ascarid eggs when present in clayey than in sandy kind of soils. On the other hand, sandy are well aerated and relatively less-adhesive than clayey soils², perhaps facilitating recovering ascarid eggs from soil samples. We tested this assertiveness employing samples of clayey and sandy soils experimentally contaminated with *Toxocara canis* eggs.

One Petri dish was filled up with 100 grams of sandy soil and other with the same quantity of clayey soil. Both soil samples had been previously sterilized at 150 °C for 40 minutes and, afterwards, were each one contaminated with 7,000 *Toxocara canis* eggs obtained from the uterus of dissected females. One week after, all sandy and clayey soil were completely examined by flotation in a saturated zinc sulphate solution and the quantity of recovered eggs showed in the Table 1.

Table 1

Number of *Toxocara canis* eggs recovered by floatation in zinc sulphate solution from soil samples experimentally contaminated by 7,000 eggs

Soil	No.	%
Sandy	4,691	67.0
Clayey	2,178	31.1

Our results suggest that, despite the referred better evolution rate in clayey soils², *Toxocara* eggs could be more easily recovered from sandy soils and this should be taken in account for result interpretation of surveys carried out for soil contamination by ascarid eggs.

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