

High prevalence of potentially zoonotic *Toxocara cati* in cats from the north and centre of Portugal

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BACKGROUND

The cat is nowadays a very fashionable pet, playing a very important role in the society, because besides providing companionship to the owners, they promote the psychological well being of many people. On the other hand, these animals can also represent a health risk through zoonotic parasitic diseases that can be transmitted to humans.

AIM

The objective of this study was to evaluate the prevalence and diversity of zoonotic gastrointestinal parasites in domestic cats from the north and centre of Portugal.

MATERIALS AND METHODS

Cats' faecal samples had been collected at households, veterinary hospitals or clinics and at state shelters. The samples were analysed using qualitative and quantitative methods (Willis and McMaster, respectively, Figures 1 and 2).



FIGURE 1. Material used to perform Willis Method.



FIGURE 2. Material used to perform McMaster method.

RESULTS

Of the 411 collected samples, with the results of the qualitative analysis, it was possible to identify that 29.7% of them (122/411) had parasitic forms. The most prevalent parasite was *Toxocara cati* (20.2%, 83/411) (Figures 3 and 4), followed by *Cystoisospora felis* (6.6%, 27/411) and *Cystoisospora rivolta* (4.4 %, 18/411) (Fig. 5), hookworms (4.9%, 20/411) and *Capillaria* spp. (0.5%, 2/411). The burden of *Toxocara cati* reached 162400 eggs per gram of feces in some samples, especially from kittens.



FIGURE 3. *Toxocara cati* eggs (OM, 100x).

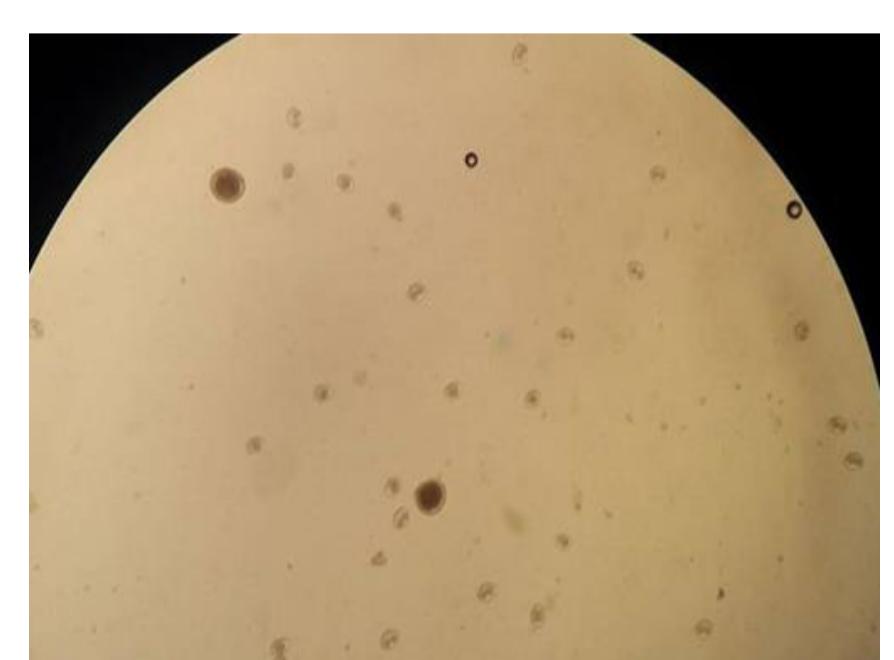


FIGURE 5. Triple infection by *Toxocara cati*, *Cystoisospora felis* and *Cystoisospora rivolta* (OM, 40x).



FIGURE 4. Ancylostomatidae and *Toxocara cati* (OM, 100x)

DISCUSSION AND CONCLUSION

The burden of parasites found was not negligible. There is an environmental contamination with potentially zoonotic parasites - *Toxocara cati* and hookworms - so it is essential that the population is alert and aware of these diseases so that they can also be prevented through proper deworming of the animals, as well as appropriate prophylactic measures.

PERSPECTIVES

These results suggest that there is a public health risk for cats' owners and the need to promote health education concerning parasitic zoonoses, in a one health perspective.