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INTRODUCTION

In kennel dogs, the prevalence of intestinal parasite infections is frequently high and may include potential zoonotic species/genotypes.



MATERIALS AND METHODS

Prevalence and potential risk factors of *Giardia duodenalis* infection were assessed in 168 dogs of different sex and age from four Tuscan kennels (Pistoia, Prato, Florence, Valdarno). Other intestinal parasites were also evaluated.

Kennels and Dogs				
Pistoia	Firenze	Prato	Valdarno	Total
33	22	48	65	168
Age Classes				
0-6 months	6-12 months	1-8 years	> 8 years	
15	24	78	51	

Individual dog fecal samples were examined by parasitological techniques (fresh and stained faecal smears, Mini-FLOTAC) and a commercial rapid immunoassay for the detection of *G. duodenalis* and *Cryptosporidium* faecal antigens. On *Giardia*-positive samples, molecular analysis was performed for genotype identification. Data were statistically analysed ($p \leq 0.05$).



RESULTS

Out of the 168 examined dogs, 69 dogs scored positive for *G. duodenalis* (41%). Significant differences ($p \leq 0.05$) were found among kennels and age groups regarding *G. duodenalis* prevalence. The highest prevalence was recorded in the age-group ≤ 6 months and in the kennel in Pistoia. The potential zoonotic assemblages A and B and the dog-specific assemblage C (Pistoia: A-AII, B, C; Prato: A-AII, B; Florence: A-AII; Valdarno: A and C), were identified.

Toxocara canis (15/168, 8.93%), *Trichuris vulpis* (6/168 dogs, 3.57%), hookworms (2/168, 1.19%), and *Cryptosporidium* spp. (1/169, 0.6%), were also identified.

CONCLUSIONS

The high prevalence of *G. duodenalis* and the identification of potentially zoonotic parasitic species/genotypes in all examined kennels, underline the need to improve routine parasite control measures and to provide insights into the local transmission dynamics and host-specificity of *G. duodenalis*.

