



## O-19. ANTIGENAL EVALUATION OF DIROFILARIASIS AND ANGIOSTRONGYLOSIS IN DOGS FROM NORTHERN AND CENTRAL PORTUGAL

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Keywords: Dirofilariasis, Angiostrongylosis, Dogs, Portugal, Prevalence

Canine dirofilariasis is a relevant vector-borne disease with established importance due to its zoonotic potential and emergency worldwide. Canine angiostrongylosis is another emerging disease with fatal outcomes in dogs and increasingly reports throughout Europe. Several factors are involved in the spreading of these diseases, such as climatic and ecological changes and its impact on the distribution and density of vectors (or intermediate hosts), increased pet traveling, expansion and movement of wild reservoirs and stray dogs' populations and lack of preventive measures in non-endemic areas. The aim of the present study was to assess the prevalence of infection with *Dirofilaria immitis* and *Angiostrongylus vasorum* in the canine population of northern and central Portugal.

Serum samples were collected from 200 domestic dogs in 11 veterinary clinics and hospitals from 7 districts (Aveiro, Braga, Bragança, Porto, Viana do Castelo, Vila Real, Viseu). Two commercial rapid in-clinic serological tests were used for qualitative detection of *D. immitis* and *A. vasorum* antigens. A complete clinical record was kept for each dog through a model questionnaire. The  $\chi^2$  and Fisher's exact tests were used to evaluate the association between potential risk factors and positivity to each pathogen.

The overall prevalence was 3% and 1% for *D. immitis* and *A. vasorum*, respectively. Districts like Aveiro (5.3%) and Viana do Castelo (9.5%), revealed higher *D. immitis* prevalence. Positive cases for *A. vasorum* were only detected in Aveiro and Viana do Castelo. Regarding positive *D. immitis* dogs, around 67% were males and 33% females, 50% were 1 to 4 years old, 33% were 5 to 9 years old and 17% were 10 to 14 years old. Half of the positive cases lived mixed indoors and outdoors, about 33% lived outdoors and 17% lived indoors. No positive cases were detected in long haired dogs, being 83% short and 17% medium haired. About 67% cases had regular treatment with ectoparasiticides and 50% used to travel to places far from the district of origin. About 83% had related clinical signs. Concerning positive *A. vasorum* cases, all were medium haired, male dogs and had regular treatment with ectoparasiticides; 50% were 5 to 9 years old and 50% were 10 to 14 years old. Half of them lived mixed indoors and outdoors and the other half lived outdoors. Half of them used to travel to places far from the district of origin and 50% had clinical signs.

Dogs living in northern and central regions of Portugal are at risk of acquiring infection with *D. immitis* and *A. vasorum*. Its detection together with the general lack of owners' compliance regarding prophylactic measures, justify the need of adapting protocols in those local areas.

