

Vector borne agents in stray cats and hospital attending companion animals – preliminary results

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Objectives: Stray cats are increasingly recognized as important reservoirs for a variety of vector-borne agents. Their outdoor lifestyle fosters frequent contact with wildlife and ectoparasites, predisposing them to infections with pathogens that can impact both animal and human health. Hospital attending cats and dogs generally present a lower risk for vector borne infections, but are also affected and their risk varies greatly with the conditions of housing and administration of ectoparasiticide treatments. Understanding the prevalence and diversity of vector-borne agents in these populations is essential for developing effective veterinary and public health interventions. This stud aims to evaluate the presence of vector-borne agents in two distinct populations, stray cats and hospital attending cats and dogs, contributing to the current epidemiological knowledge.

Material and methods: Genomic DNA was extracted from blood samples and used to test for *Anaplasma/Ehrlichia* spp. and piroplasmids (*Babesia* spp., *Cytauxzoon* spp., *Hepatozoon* spp.) through conventional PCR.

Results: Genomic DNA was extracted from 102 blood samples, with 47 samples belonging to stray cats and 55 samples belonging to hospital attending cats and dogs. Among the samples belonging to hospital attending animals, 40 animals presented hematology results with anemia while the remaining 15 animals did not present hematological alterations. The 102 samples were tested for the presence of *Anaplasma/Ehrlichia* spp., with 2 samples presenting positive, one belonging to a stray cat and one belonging to a hospital attending dog with anemia. To date, the testing of piroplasmids has been limited to stray cats, with eight animals testing positive.

Conclusions: The current results indicate a higher prevalence of piroplasmids compared to *Anaplasma/Ehrlichia* spp. in the stray cat population. This work will be followed up with additional PCR testing of the remaining samples and for other relevant agents.

Key words: Vector borne agents, dog, cat, piroplasmids, *Anaplasma/Ehrlichia* spp.

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