



P-10. MAPPING THE HEARTWORM INFECTION IN THE HYPERENDEMIC ISLAND OF GRAN CANARIA (2018-2020).

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Heartworm disease is caused by *Dirofilaria immitis*, which is a nematode that is transmitted through the bite of hematophagous mosquitoes. Dogs and cats are the most affected reservoirs; humans can also be infected, being considered a zoonotic disease. The first study of the prevalence of *D. immitis* that was carried out on the island of Gran Canaria was in 1994, showing a prevalence of 67.02% in the canine population studied. Over time, these data have been decreasing. However, it is still considered a hyperendemic island. This study shows unpublished data on the prevalence of *D. immitis* in dogs, cats and inhabitants of the island of Gran Canaria, from 2018 to 2020. A total of 969 dogs, 707 cats, and 411 humans were analyzed for detection of antigens (dogs) or antibodies (cats and humans) against *D. immitis*, over a 3-year period (2018-2020) in Gran Canaria. Data on age, sex, habitat and geographic climate were taken into account. There were no significant differences between age or sex. Those dogs and cats with access to the outside presented greater exposure to the parasite than those that lived exclusively indoors. It was observed that the prevalences in dogs and cats were higher in those areas of the island with a temperate and cold climate (TC), followed by temperate and mild climate zone (TM), and later dry and steparic climate zone (DS). Dry and desert climate zone (DD) presented the lowest prevalence in all the years studied. In the case of humans, the prevalences according to the climate varied in the different years, but the TC and TM climates were always higher. Meanwhile, those inhabitants of DS climates always presented the lowest prevalences. Likewise, there was no marked variation in the prevalences of the last three years in the three species studied. The prevalences in dogs ranged from 16.09% to 15.71%, ending with 15.81%. In the case of cats, they went from 17.19% to 17.91%, ending with 17.20% in 2020. Finally, the prevalence in humans started at 10.43% in 2018, going through 9.2% in 2019, until reaching 8.27% in 2020. These results show stable prevalences in recent years thanks to the implementation of control and prophylactic measures in Gran Canaria. However, it is important to improve hygienic-sanitary conditions and increase knowledge of the disease among the inhabitants of the island to reduce the number of untreated reservoirs, which are an impediment for the data to continue to decrease. Furthermore, these results also show the zoonotic importance of this disease, and therefore, reinforce the need for control measures.

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References

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