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EVALUATION OF THE EFFICIENCY OF THREE TECHNIQUES FOR DIAGNOSIS OF THE CANINE DIROFILARIOSE

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ABSTRACT

Introduction: *Dirofilaria immitis* is a filarid nematode that impacts dogs and other mammals worldwide, being transmitted by mosquito bites, causing heart failure without the dog that is the definitive host. The intermediate host may belong to several genera of mosquitoes such as *Aedes*, *Anopholes* and *Culex*. Objectives: this study aims to evaluate three techniques for the diagnosis of canine heartworm disease. Methods: it is an experimental analytical study. The tests were carried out on all wandering dogs adopted by a shelter in the city of Jaboatão dos Guararapes, Pernambuco, Brazil. Sample collection was performed in a dog with gag, antisepted with iodinated alcohol for venous puncture in cephalic vein with a 5 ml disposable syringe and transferred to tube containing anticoagulant. He samples were processed at the Pet Life laboratory in Jaboatão dos Guararapes, Pernambuco, Brazil. Three techniques were employed, such as: Alere *Dirofilariose* Ag test kit; direct examination - thick smear drop and modified Knott's method (1939). Of the total of 30 shelter dogs, 9 were males and 21 females. Results: Thirteen dogs presented positivity in the Alere *Dirofilariose* Ag Test Kit (43.33%), being 9 females and 4 males. Of the thirteen positive animals in the immunological method, ten were positive by the Knott Method (33.33%) and five were positive in the Thick Smear Drop test (16.66%). Conclusion: the presence of canine heartworm disease caused by *D. immitis* in a given region suggests that there may be human contamination causing pulmonary heartworm disease. This infection should be considered in the differential diagnosis of lung neoplasms and fungal infections. It was verified that the Alere *Dirofilariose* Ag Test Kit presented a high sensitivity in relation to the thick drop test and the Modified Knott Method, being able to evidence asymptomatic canine heartworm and nondetectable animals by the other techniques used.

Keywords:

Dirofilaria immitis, Heartworm disease, Nematode.

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