

## OCCURRENCE OF DIROPHILARIA IMMITIS IN CANIS FAMILIARIS - CASE REPORT

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**Abstract:** *Dirofilaria immitis* is a hematophagous nematode, which parasitizes the circulatory system, causing heartworm disease, an anthroponosis, which has a chronic nature and can form thrombi and calcified nodules in the lungs of human beings. Transmitted mainly by mosquitoes of the following genera: *Aedes*, *Culex* and *Anopheles*, where microfilariae, the parasite's first life forms, are developed. Dogs become infected during mosquito prey, causing the larvae to migrate from the subcutaneous tissue to the peripheral circulation, until it reaches the target organ of parasitism, and may accidentally affect humans. This work aims to report a parasitic finding in a necropsy of heartworm disease in a dog in the municipality of Belém do Pará in northern Brazil. Diagnosed through necropsy, where conventional necropsy methods were used to identify the parasite, the place where it was found, its anatomy and bibliographic references. The main finding was a parasite in the left ventricle, later identified as *Dirofilaria immitis*, measuring 16 centimeters, in addition to the presence of an aortic thrombus. Considering that *Dirofilaria immitis* infection is an emerging zoonosis, mainly in domestic areas with poor infrastructure and basic sanitation, which become environments suitable for the reproduction of mosquitoes that vector the disease. Therefore, it is necessary for the veterinarian to act from case recognition to epidemiological control. These findings are important due to their relevance to public health and animal welfare.

**Keywords:** Canidae. Heartworm disease. Amazon.

## INTRODUCTION

*Dirofilaria immitis* is a hematophagous nematode, which parasitizes the circulatory system, causing heartworm disease, an anthroponosis, which has a chronic nature and can form thrombi and calcified nodules in the lungs of human beings. Transmitted mainly by mosquitoes of the genera *Aedes*, *Culex* and *Anopheles*, where microfilariae, the first life forms of the parasite, develop. Dogs become infected during mosquito prey, causing the larvae to migrate from the subcutaneous tissue to the peripheral circulation, until it reaches the target organ of parasitism, and may accidentally affect humans.

## GOAL

This work aims to report a parasitic finding in a necropsy of heartworm disease in a dog in the municipality of Belém do Pará in northern Brazil. Emphasizing the importance of necropsy achievements.

## METHODOLOGY

Diagnosed through necropsy, where conventional necropsy methods were used to identify the parasite, the place where it was found, its anatomy and physiology, in addition to bibliographical references on veterinary parasitology.

## RESULTS AND DISCUSSION

As results we can highlight a single parasite, a nematode, with a thin, long and whitish appearance, measuring 16 centimeters, located in the left atrium of the heart, later identified as a male of *Dirofilaria immitis*, in addition to the nematode, the presence of an aortic thrombus was also observed. The place where the worm was found is somewhat unusual, given that these parasites mainly infect the right side of the heart, the place where they reproduce.

## CONCLUSION

Considering that *Dirofilaria immitis* infection is an emerging zoonosis, mainly in domestic and coastal areas with poor infrastructure and basic sanitation, which become environments suitable for the reproduction of mosquitoes that vector the disease. It is evident that the role of the veterinarian is from case recognition to epidemiological control. Since these findings are important not only for animal welfare and domestic animal communities but also have relevance for public health.

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