

***Dirofilaria Immitis* Infection in a Three Year Old Doberman: A Case Report**

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Abstract

A three-year-old male Doberman that was presented at the Veterinary Teaching Hospital of the University of Ibadan, Nigeria with the complaint of anorexia, bloody diarrhea and weight loss was diagnosed with a chronic form of heartworm disease based on the findings at the physical examination which included a complete blood count, liver function tests and thoracic radiography. The physical examination revealed that the dog's mucous membranes were pale and there was a copious bilateral mucopurulent ocular discharge present. There was subcutaneous oedema on the ventral thoracic region, while auscultation revealed tachypnea and an irregular heart rhythm. The results of the hematology and liver enzyme tests revealed moderate anaemia, which was normochromic and normocytic. There was mild neutrophilia, eosinopaenia and monocytopenia. Both the alkaline phosphatase (ALP) and aspartate transaminase (AST) were markedly elevated.

Also, the serum albumin concentrations and the albumin/globulin ratio were both markedly lowered. The direct blood smear revealed that the dog was negative for both *Babesia canis* and *Ehrlichia canis*, but positive for microfilaria. The microfilaria was $309 \pm 30 \mu$ in length and the anterior and posterior widths were $12 \pm 2.4/\mu$ and $9 \pm 1.6 \mu$, respectively. The lateral thoracic radiograph showed that the heart was normal in size, while the pulmonary vasculatures were visible and within normal range. The health of the dog improved following treatment with levamisole and gentaprim. This case confirms the efficacy of levamisole in combination with gentaprim in the management of canine heart worm disease.

Keywords: Levamisole; *Dirofilaria immitis*; Doberman
