

## CANINE DISTEMPER VIRUS IN MYRMECOPHAGA TRIDACTYLA IN A RESCUE CAPTIVITY FACILITY

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### RESUMO

The giant anteater (*Myrmecophaga tridactyla*) has a broad distribution through the Brazilian biomes and currently is considered vulnerable by the IUCN. The main threats for this specie conservation are the destruction of their natural habitat, hunting, being killed on a road and diseases. The canine distemper virus (CDV) is a Morbillivirus, it is a multisystemic infectious disease. It is responsible for a significant population decrease in free ranging wild mammals. The objective of this study is to describe a CDV outbreak in three *Myrmecophaga tridactyla*. From May to August 2019, the Centro de Triagem de Animais Silvestres in Belo Horizonte (CETAS/BH) received three 6 to 11- week-old anteater cubs from different places. Of these, two anteater cubs arrived in the CETAS/BH requiring veterinary assistance, due to hypoglycemia, hypothermia, and dehydration. Since receiving the third anteater cub, nonspecific clinical signs such as dehydration, diarrhea, abdominal distension, weight loss, hyporexia and prostration were observed in the animals in different intensities and distinct periods. The clinical supportive treatment for the animals included fluid therapy, probiotic for dogs, vitamin K, simethicone, and broad-spectrum antibiotic therapy. The animals were kept in the same room and released daily in a common area of a solarium cohabited by other animals, such as *Trachemys* sp. The clinical signs of the animals evolved and the most severe were diarrhea, hematochezia and dyspnea. Common hematological and biochemical findings found in the three animals were normochromic anemia, moderate thrombocytopenia, and neutrophilia. In the period from September to October, despite the clinical support, two anteater cubs died, and euthanasia was performed in another anteater. The three animals were submitted to post-mortem examinations and samples of liver, spleen, brain, lungs, lymph nodes, stomach and intestines contents were collected for histopathological analysis and detection of CDV by RT-PCR. In all animals, compatible distemper lesions and inclusion bodies associated with viral inclusion from the CDV were observed, mainly in the lungs and intestines. No lesions were present in the central nervous system. Tissue samples were tested by RT-PCR and confirmed the histopathological findings regarding the presence of the CDV virus. Animals of this report, particularly presented clinical signs and lesions related to digestive and respiratory forms of CDV, which were lethal to these animals. The anthropization of natural environments presents a challenge to the conservation of giant anteaters. Environmental changes go against the best conditions for the species survival and it is also brought to a closer contact to humans and domestic

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animals. This context favors the exposure to pathogenic agents such as canine distemper virus. High rates of infection and lethality of the virus and the development of the disease become a challenge for institutions that receive wild animals. Available space for isolation and other biosafety measures are important for the control of agents such as the CDV, but they are also one of the greatest difficulties in these places.

**PALAVRAS-CHAVE:** Biodiversity Conservation, Diagnostic, Wildlife, Xenarthra

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