

Veterinary medicine and public health: From diagnosis to the fight against leishmaniasis

Simone Tateishi¹, Werner Peter Marcon², Maria José Calegari³, Beatriz Pereira Espadin⁴, Emmanuel Zullo Godinho⁵, Aluisia Budin Fodra⁶, Caetano Dartiere Zulian Fermino⁷, Inácio Zapparoli Bardini⁸, Matheus Augusto Santos Antoniazzi⁹.

ABSTRACT

Listed by the World Health Organization (WHO) as neglected tropical diseases in the Americas, tegumentary and visceral leishmaniasis were considered a priority, along with other tropical diseases, such as leptospirosis and spotted fever, due to their lethality potential. According to the WHO, in the last 20 years the number of cases and the expansion of the geographical area of incidence of leishmaniasis has been increasing, and in 2021 Brazil reported 16,432 cases of leishmaniasis, infectious-parasitic diseases of chronic evolution, caused by protozoa of the genus *Leishmania*, being zoonotic *Leishmania braziliensis*, *L. amazonenses* and *L. (Viannia) guyanensis*, transmission occurs through the bite of the mosquito *L. longipalpis* (sandfly). Cutaneous Leishmaniasis causes erythematous-papular lesions at the site of the vector bite, causing a skin nodule with a single or multiple persistent ulceration, with a rounded shape, in various parts of the body, pads and extremities of the animals. Clinical signs of visceral leishmaniasis include prostration, asthenia, anemia, fever, pancytopenia, and hepatosplenomegaly, with high mortality when left untreated. Diagnosis for Cutaneous Leishmaniasis occurs by serology, rapid immunochromatographic test or enzyme-linked immunosorbent assay. For Visceral Leishmaniasis, the diagnosis occurs by Indirect Immunofluorescence Assay, bone marrow puncture for PCR, lymph node cytology and splenic histopathology. Treatment for integumentary disease occurs by administering the leishmaniotic Alupurinol and the associated leishmanicides antimoniate meglumine and miltefosine. For Visceral, the administration of furazolidone and domperidone. So far without a cure, the most assertive method to combat leishmaniasis is prevention: maintain hygiene where the animals circulate; avoid accumulation of organic material; pack garbage bags well; use repellent products for animals, such as collars, sprays and shampoos; avoid exposing the animals at the times of greatest activity of the vectors (dawn and dusk); install protective screens on the doors of the houses and kennels of the animals that stay overnight outside house.

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¹ Gennari and Peartree College – São Paulo

² Gennari and Peartree College – São Paulo

³ Gennari and Peartree College – São Paulo

⁴ Gennari and Peartree College – São Paulo

⁵ Sacred Heart University Center – São Paulo

⁶ Sacred Heart University Center – São Paulo

⁷ Sacred Heart University Center – São Paulo

⁸ Sacred Heart University Center – São Paulo

⁹ Sacred Heart University Center – São Paulo