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POSITIVITY IN XENODIAGNOSIS OF DOGS WITH VISCERAL LEISHMANIASIS TREATED WITH MILTEFOSINE AND ALLOPURINOL AND ITS RELATIONSHIP WITH CLINICAL, LABORATORY PARAMETERS, AND PARASITIC LOAD IN THE SKIN.

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Abstract

Treatment of dogs with VL using Milteforan® was approved in Brazil in 2016. Our objective was to evaluate the infectivity of dogs for Lutzomyia longipalpis 12 months after treatment and the clinical status, laboratory response, and parasitic load in the skin. Thirty dogs seroreactive were treated for 28 days with Milteforan®(2mg/kg/SID) and Allopurinol (10mg/kg/BID) and fitted with repellent collars. They were divided into two groups according to the use of Allopurinol: G1 interruption of Allopurinol; G2 Allopurinol for 12 months. The dogs were monitored for one year with clinical and laboratory evaluations. Skin biopsies were taken to quantify the parasitic load, and at the end of the 12 months follow-up, xenodiagnosis was performed. We observed a significant reduction in the parasitic load of dogs in G2, at six and twelve months after treatment compared to baseline, while in G1 there was no variation. 60% of the infectious dogs were from G1. The severity of onychogryphosis and dermatitis was associated with increased parasitic load, and the increase in serum albumin concentration is associated with its reduction. These effects occurred regardless of the treatment time. Dogs that were in stages 1 or 2 of the disease before treatment showed reduction in the parasitic load over time, with lower values than those that started in stages 3 or 4. 90% of the infectious dogs were in stages 3 or 4 of the disease, with significant association. Dogs that started treatment with antibody titer up to 1/160 showed reduction in the parasitic load over time. At the end of the study, dogs with low titers had lower parasitic load than dogs with higher titers. All infectious dogs for Lu. longipalpis had antibody titer of 1/160 or higher, and this titer was associated with the infectivity of the dog. We can conclude that infectious dogs for the vectors have characteristics that serve as markers of infectivity, such as antibody titer of 1/160 or higher and staging 3 or 4 of the disease.

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