CLINICAL MANAGEMENT AND DIAGNOSIS OF A CASE OF TRYPANOSOMA EVANSI, IN A CANINE FROM PARAGUAY.



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Introduction

Trypanosoma evansi cause the disease called "Surra", which affects a variety of mammals and have a worldwide distribution. Paraguay have reported the presence of the parasite in horses and in canines, with a constant grown of cases observed in dogs. The aim of this study was to report a clinical management, diagnosis and treatment of a dog with trypanosomiasis by *T. evansi* in Paraguay.

Report of the case

A 2 years old Australian shepherd male dog, from Concepcion city, was treated at a veterinary clinic of Fernando de la Mora, Paraguay. The dog presented weakness, weight loss, normal appetite, mucous membranes pallor, intermittent febrile episodes, lymphadenomegaly, marked edema of the hind limbs, forelimbs, and conjunctival. Arrhythmic heart rate.

CBC showed normocytic hypochromic no regenerative anemia, thrombocytopenia, leukopenia (Table 1) and Trypomastigotes of *Trypanosoma spp* were present in the smear (Fig. 1). Urea and creatinine were increased, decreased albumin/globulin ratio as well as an echocardiogram with a diagnosis of mitral regurgitation. Abdominal ultrasound showed splenomegaly and hepatomegaly. Molecular detection of ITS1 gene of *T. evansi* was performed by PCR (Polymerase Chain Reaction), resulting positive (Fig.2). The dog was treated with two doses of quinapyramine 3,2 mg/kg, SC with an interval of 30 days between doses. The support treatment was done with IM dexamethasone 0,1mg/kg SID, and PO furosemide 0,5mg/kg/ BID. The cardiopathy was treated with pimobendane and benazepril 10 mg.

After 3 days of treatment the dog had a clinical improvement and fever disappeared, trypomastigotes was not detected by smears after 10 days and abnormal laboratory parameters improved after a month.

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Fig. 1. Trypomastigotes of *Trypanosoma spp*. Giemsa (40X). Photo: Cedivep



Fig. 2. ITS1 gene PCR of *T. evansi.* M (Marker 100pb), Lane 1: positve sample, Lane 2: Negative control, Lane 3: *T. evansi* positive Control (475 pb), Lane 4: *T. vivax* Positive control (250 pb).

		BEFORE TREATMENT			AFTER TREATMENT	
	CBC COUNT	31/05/2022	03/06/2022	08/06/2022	15/06/2022	06/07/2022
0	Hemoglobin	9,1g/dL 🔶	8,8 g/dL 🚽	8,1 g/dL 🚽	11.1 g/dL 🔸	13.1 g/dL 🖕
	Hematocrit	28% 🔶	27%	25% 🕇	34% 🔻	40%
	Red blood cells	4.120.000 mm3 🛛 🕇	3.950.000 mm3 🛓	3.740.000 mm3 🕇	5.005.000 mm3 ↓	6.090.000 mm3
5*-	White blood cells	6.800 mm3 🛓	4.900 mm3 🛉	9.600 mm3	13.600 mm3	18.000 mm3
5	Platelets	116.000 mm3 🛉	147.000 mm3 🕇	202.000 mm3 🕇	618.000 mm3	441.000 mm3
Ģ	Total Proteins	7.05 g/dL	8.10 g/dL	10.91 g/dL	8.17 g/dL	7.90 g/dL
1.1.	Giemsa smear (40x)	Trypanosoma spp	Trypanosoma spp	Trypanosoma spp	Trypanosoma are not observed	Trypanosoma are not observed

 Table1. Evolution of the CBC count before and after the treatment.

Conclusion

After 10 days of treatment with quinapyramine, trypomastigotes of *T. evansi* are not observed by Giemsa smears, and clinically the fever disspeared. Abnormal CBC count improved, but it's neccesary to continue the clinical evaluation and get a negative PCR test, to confirm the negative parasitemia , and to obtain the medical discharge.

