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## Uveitis associated to the infection by *Leishmania chagasi* in dog from the Olinda city, Pernambuco, Brazil

Uveíte associada à infecção por *Leishmania chagasi* em cão  
na cidade do Olinda, Pernambuco, Brasil

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### - CASE REPORT -

#### ABSTRACT

*Among the parasitic diseases, Canine Visceral Leishmaniasis (CVL) is included in the systemic illnesses of chronic evolution that attack men and dogs, presenting varied clinical manifestations as cachexia, dermatologic lesions, peripheral lymphadenopathies, besides the ocular lesions. This work report the case of a dog clinically suspected of having CVL, presenting skin lesions, cachexia, gryphosis, and ocular signs of uveitis. The parasitological diagnosis was accomplished for Canine Leishmaniasis through the visualization of amastigote forms of *Leishmania chagasi* in smears of bone marrow fluid aspirate, of non-lesioned, and lesioned skin. Alterations in the ocular structures are characterized mainly by mononuclear-plasmocytic infiltrate.*

**Key words:** uveitis, *Leishmania* sp, dog.

#### RESUMO

*Dentre as doenças parasitárias, a Leishmaniose Visceral Canina (LVC) inclui-se entre as enfermidades sistêmicas de evolução crônica que acometem seres humanos e cães, suscitando nessa última espécie, manifestações clínicas variadas como caquexia, dermatopatias, linfadenopatias periféricas, além das lesões oculares. Neste trabalho, relata-se o caso de um cão com suspeita clínica de LVC, apresentando lesões dermatológicas, caquexia, grifose e sinais oculares de uveíte. Realizou-se diagnóstico parasitológico para leishmaniose canina através do encontro de formas amastigotas de *Leishmania* sp. Alterações nas estruturas oculares*

*caracterizaram-se, principalmente, por infiltrado mononuclear-plasmocitário.*

**Palavras-chave:** uveíte, *Leishmania* sp, cão.

#### INTRODUCTION

The uveitis, which is defined as the inflammation of the uveal tract, is a component of most of the intraocular diseases. Its highly vascular nature and proximity with other intraocular structures make it a commonly found disease (COLLINS & MOORE, 2003).

Uveitis is manifested by a wide variety of ocular signs (SLATTER, 1990). The systemic diseases have been reported as endogenous causes of uveitis. The Canine Visceral Leishmaniasis (CVL), or canine calazar (kala-azar), is included among the evolution diseases of zoonotic character (FEITOSA et al., 2000), potentially fatal, which attacks dogs, with clinical varied manifestations, including the ocular ones (MOLLEDA et al., 1993; GARCIA-ALONSO et al., 1996).

The ocular and histopathological alterations resulting from the CVL may affect the anterior and posterior segments of the eye (PUCHOL &

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GONZALEZ, 1989; Peña et al., 2000). The histopathological findings, in different degrees of intensity, are characterized by the infiltrate of inflammatory cells affecting several intraocular structures (MOLLEDA et al., 1993).

### CASE REPORT

The authors report a case of a 5-year-old male Rhodesian ridgeback dog assisted at the Veterinary Hospital of Veterinary College, Federal Rural University of Pernambuco clinically suspected as having CVL originating from the city of Olinda in Pernambuco state. When examined, the animal presented gryphosis, cachexia, ulcerated skin lesions and anterior uveitis.

### RESULTS AND DISCUSSION

The clinical diagnosis can be established based on the ocular signs, as ocular discharge, conjunctival hyperemia, chemosis and congested episcleral vessels (Figure 1), as it has been indicated by COLLINS & MOORE (2003). The parasitological diagnosis was accomplished through the visualization

of amastigote forms of *Leishmania* sp in smears of bone marrow fluid aspirate (Figure 2), and of non-lesioned, and lesioned skin. Due to the precarious clinical conditions and very unfavourable prognosis, the patient was sacrificed, and the eyes and adnexa were histopathologically evaluated.

On the third eyelid, the conjunctive tissue showed areas of mononuclear-plasmocytic infiltrate. Below the conjunctive, scaly metaplasia, which in some areas tried to surround groups of inflammatory cells, was observed. The third eyelid conjunctival epithelium presented scaly metaplasia, hyperplasy of the calciform cells, and mononuclear-plasmocytic subepithelial infiltrate (Figure 3). From the findings, only the inflammatory exsudation was similar to the reported by MOLLEDA et al. (1993). On the cornea, the separation of collagenous fibers was observed characterizing edema. Low quantity of plasmocytes was observed. The anterior epithelium was hyperplasic with the subjacent conjunctival stroma and the Descemet Membrane thickened. The sclera showed areas with mononuclear-plasmocytic infiltrate (Figure 3). In the ciliary body and in the iris conjunctive edema with mononuclear-plasmocytic infiltrate and vascular dilatation of the lymphatic vessels and veins was

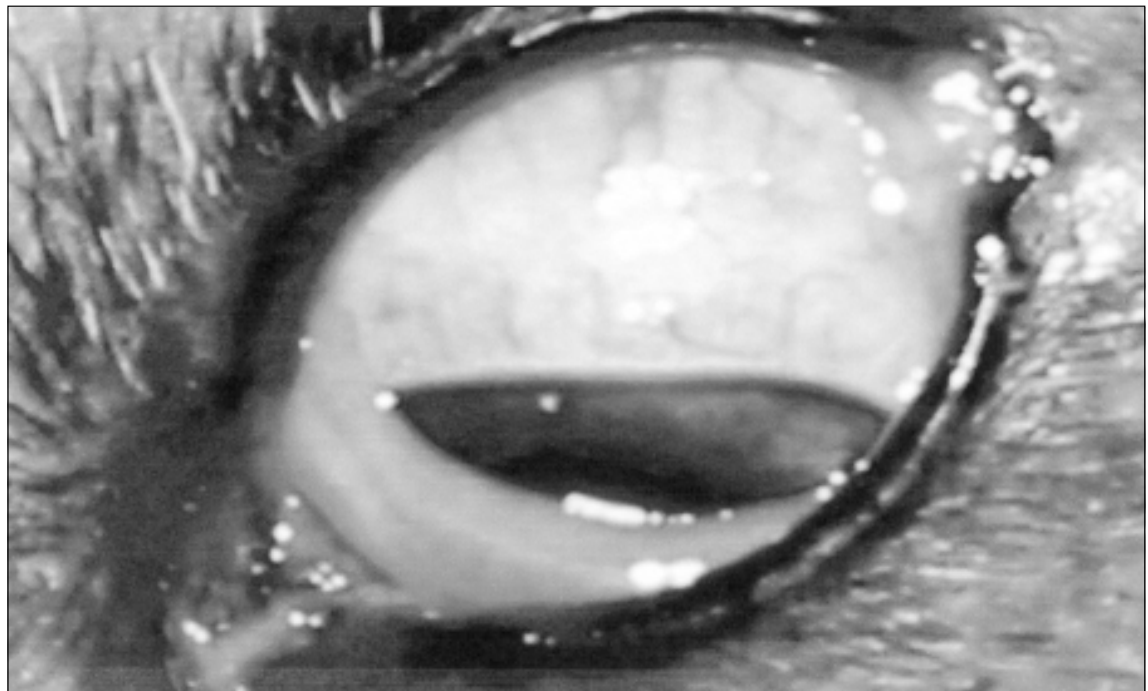


Figure 1 - Photographic image of dog eye with Leishmaniasis showing congested episcleral vessels, ocular discharge, anterior conjunctival and uveal hyperemia, parasitologically positive for *Leishmania chagasi*.

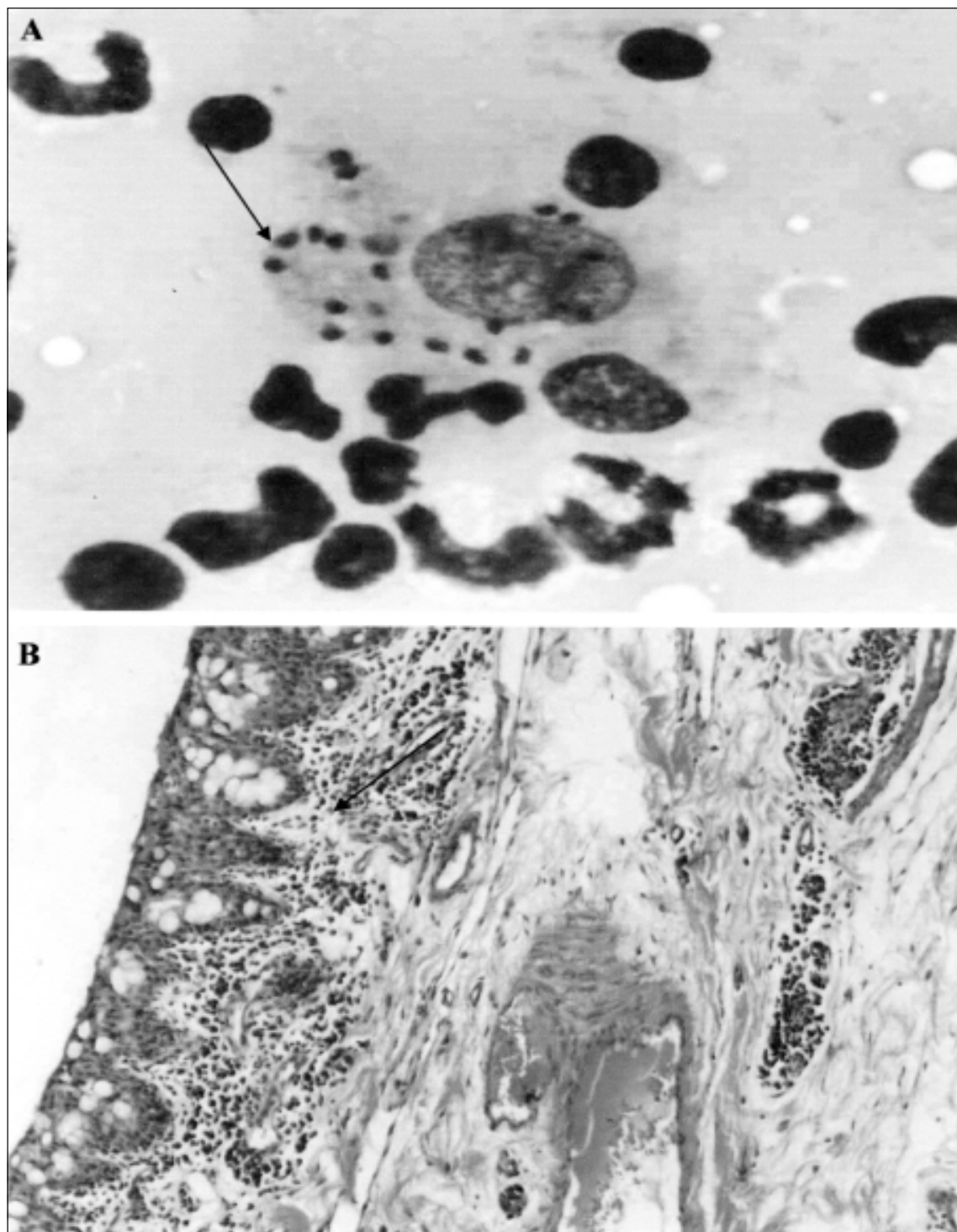


Figure 2 – A - Photomicrographic image of amastigote forms of *Leishmania sp.* (arrow) parasitizing macrophages, in smears of bone marrow fluid aspirate, stained Panotic. 1000x. B - Photomicrographic image of calciform cells hyperplasy with scaly metaplasia and mononuclear-plasmocytic subepithelial infiltrate conjunctive of the third eyelid. H&E. 400x.

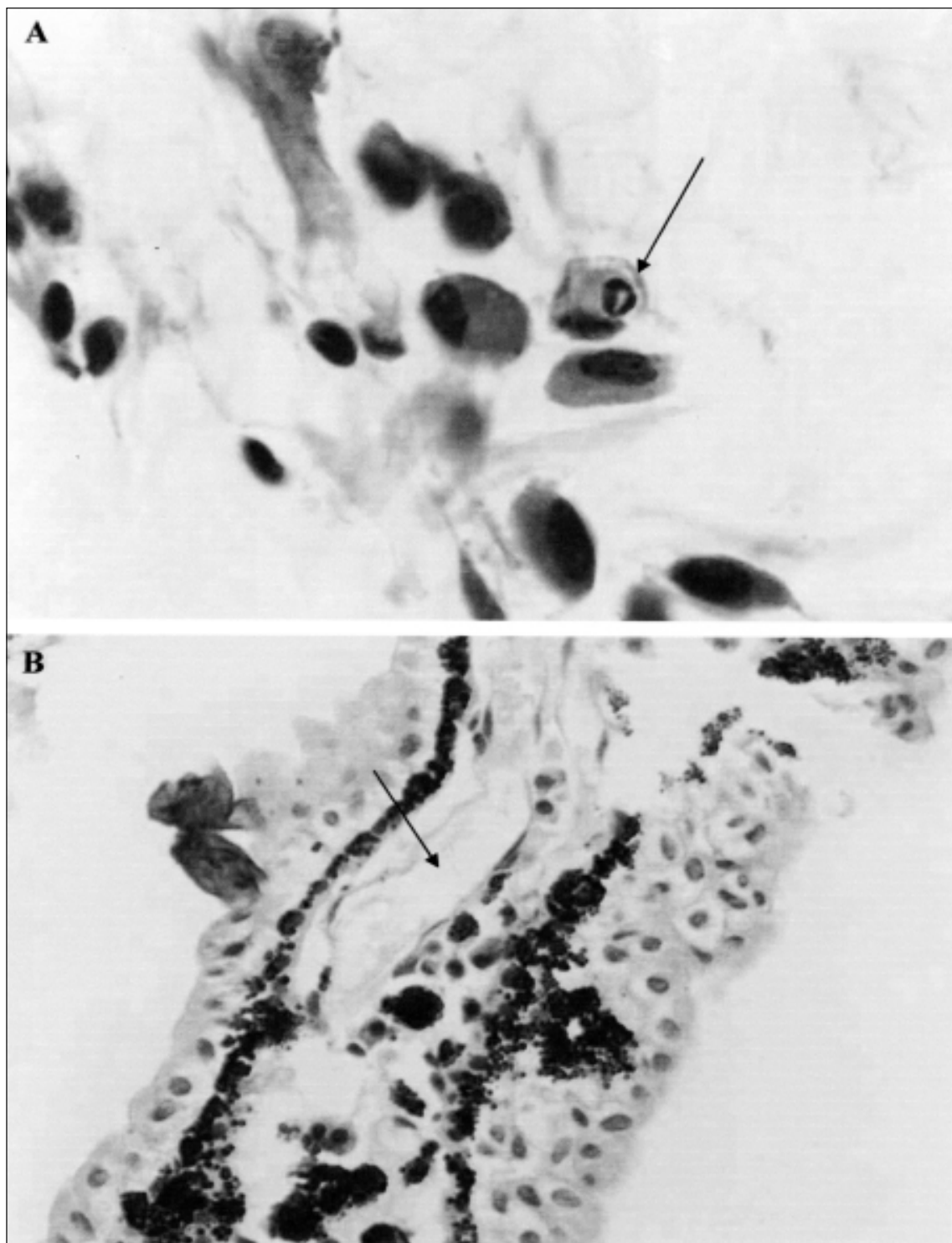


Figure 3 – A - Photomicrographic image of infiltrate showing cell of the mononuclear fagocitic system and plasmocytes of the cornea. B - Photomicrographic image of conjunctival edema and lymphatic vessels dilatation (arrow) of the iris. H&E. 400x.

observed, as it has been shown by GARCIA ALONSO et al. (1996), except for the conjunctive edema.

## CONCLUSIONS

The observations ratify the obligation of including the disease in the differential diagnosis of other infectious diseases potentially able of causing uveitis.

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