# INTRODUCTION.

Cutaneous dermatitis caused by mycobacteria is uncommon in small animals. In general, they are allocated in four groups: atypical cutaneous mycobacteriosis, canine leproid granuloma, feline leprosy, and dermal tuberculosis.

Canine leproid granuloma syndrome or canine leprosy was first described in 1973 in Zimbabwe. Since them, it has been also reported in Australia, USA, Brazil and New Zealand. Clinically it is presented as a nodular, hard, painless, sometimes ulcerated lesion. It is mainly located in the dorsal fold of the pinna. Primary short-coated and large breeds with boxer and Rottweiler's are predisposed. The bacteria are nonculturable and the pathogenesis is still unknown. Aside from the clinical presentation, the diagnosis is based on demonstrating the mycobacteria within the inflammatory cells with an acid-fast stain. Moreover, PCR- testing and molecular genetic analysis is actually used to characterize this mycobacterium.

# MATERIALS AND METHODS.

The objective of this study is to report for the first time this dermatitis in Central America and Mexico. Between 2005 and 2011, 26 cases of canine leproid granulomas were diagnosed. In 24 cases, a skin biopsy was taken and processed routinely for histopathologically examination. They were stained with hematoxylin and eosin (H&E) and later stained with Fite-Faraco (Fite). In two cases a fine needle aspiration was done. They were stained with Giemsa and Fite.

# **RESULTS.**

The more affected breeds were: Boxers (7=27%), Rottweiler's (4=15%), mixed breed (4=15%), and American Staffordshire (3=11%). Age ranged from 2 to 14 years (average 6 years). In 22 cases (85%) the pinna was affected (13 both ears, 5 one ear and 4 dogs both pinnas and other anatomic areas). The clinical presentation was a single or multiples nodules, sometimes ulcerated without responding to anti-inflammatories and/or antibiotics. (Fig.1,2). Histopathologically, the dermis and subcutis showed a nodular to diffuse presence of macrophages with abundant pale foamy cytoplasm, mixed with neutrophils and lymphocytes (Fig.3). Sometimes, necrotic areas may be present (Fig.4). All cases were positive to Fite stained. (Fig.5). Cytologically, there were a mixed cell infiltration with neutrophils and histiocytes showing abundant foamy cytoplasm. (Fig.6).

# CANINE LEPROID DERMATITIS: A RETROSPECTIVE STUDY OF 26 CASES FROM COSTA RICA.

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Fig.1. Observe the presence of multiples ulcerative nodules in the pinna.

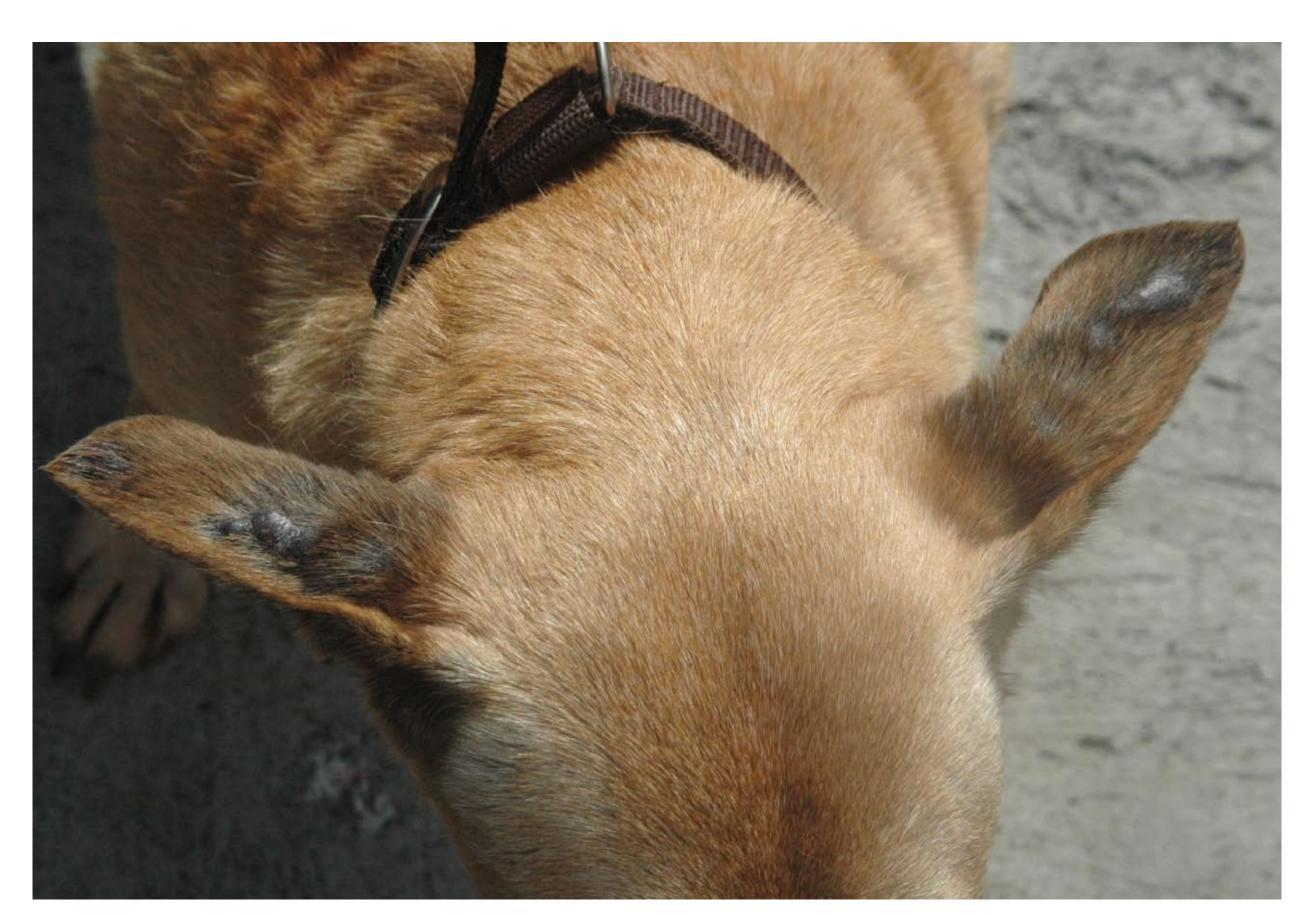


Fig.2. Two bilateral no ulcerative nodules, on the pinna fold.

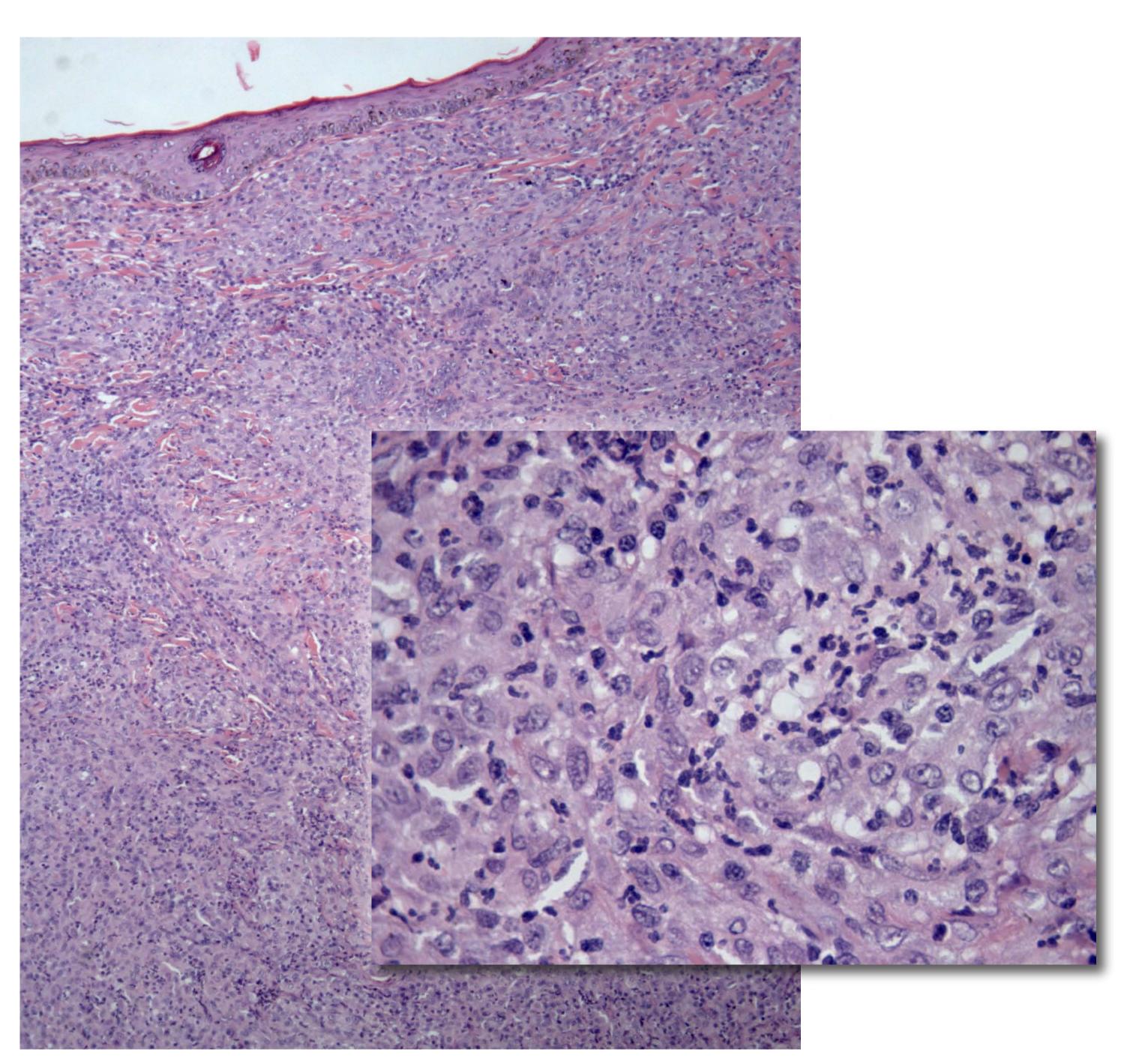


Fig.3. The dermis showed a diffuse infiltration of mixed inflammatory cells. Inset. Histiocytes with foamy cytoplasm. Also, some neutrophils. H.E. stained.

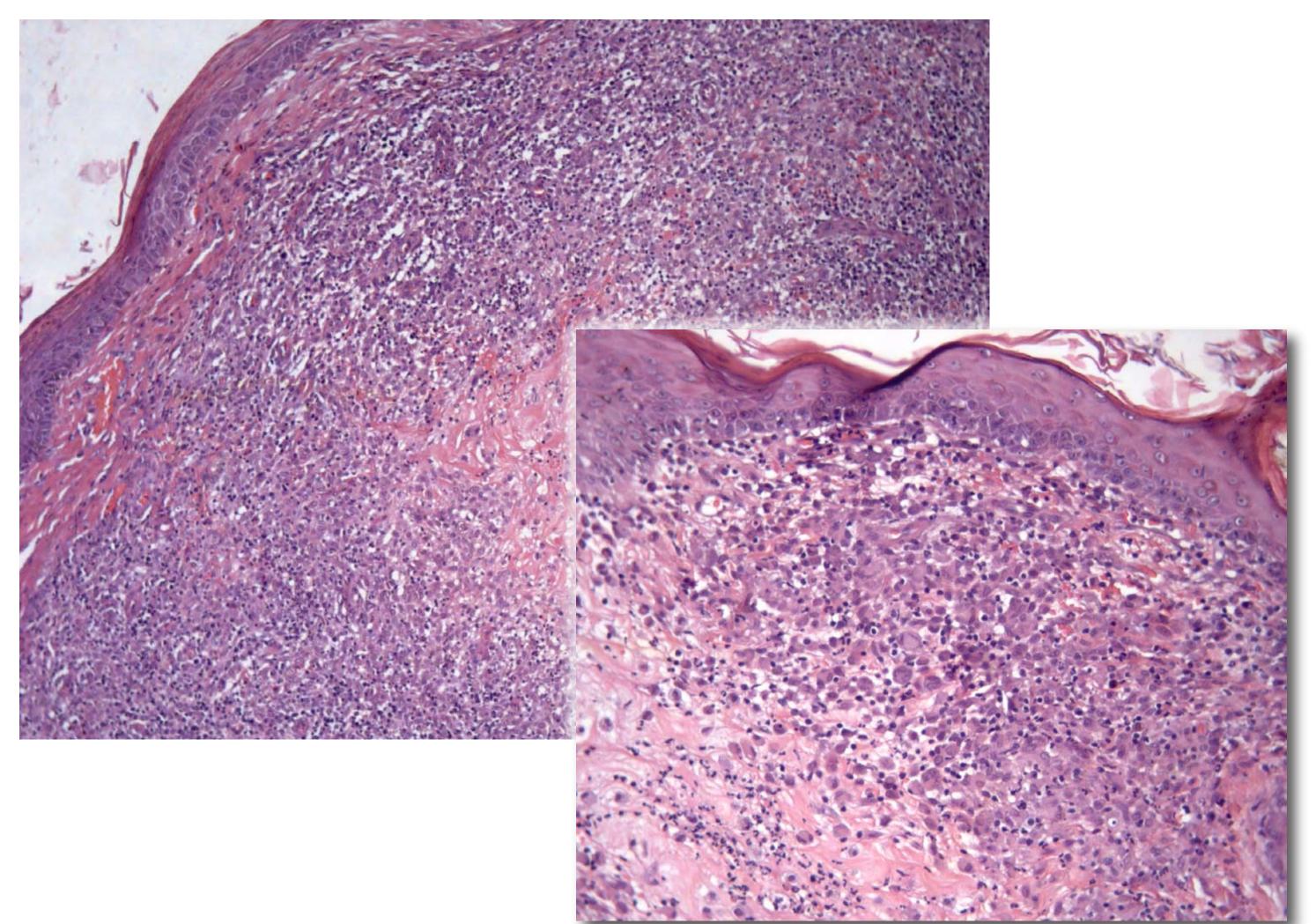


Fig.4. A diffuse inflammatory reaction with eosinophilic necrosis in the center. Inset. A lot of histiocytes with foamy cytoplasm. H.E. stained.

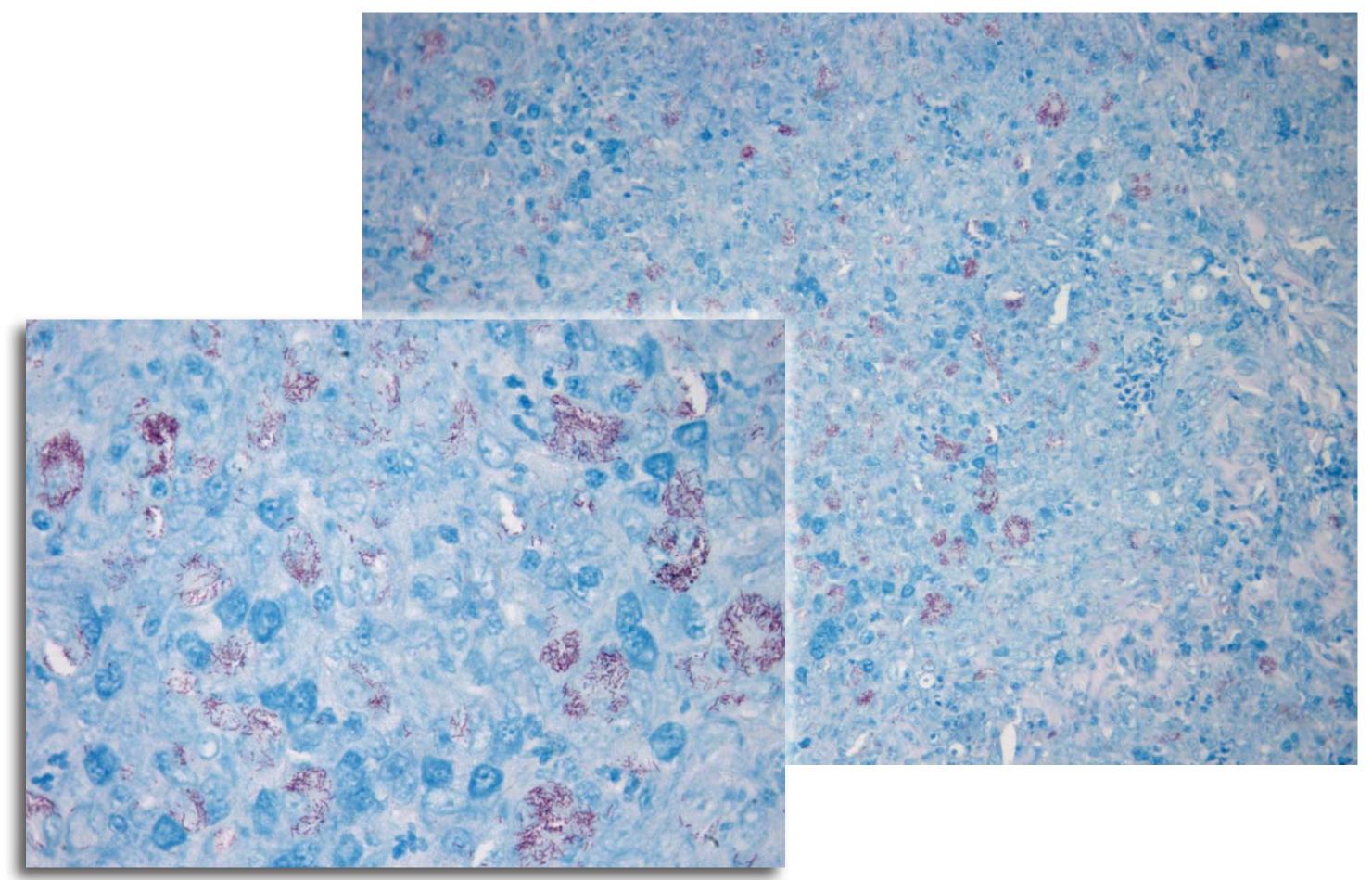


Fig.5. Positive section stained with Fite-Faraco. Inset. Many intracellular acid-fast bacteria.

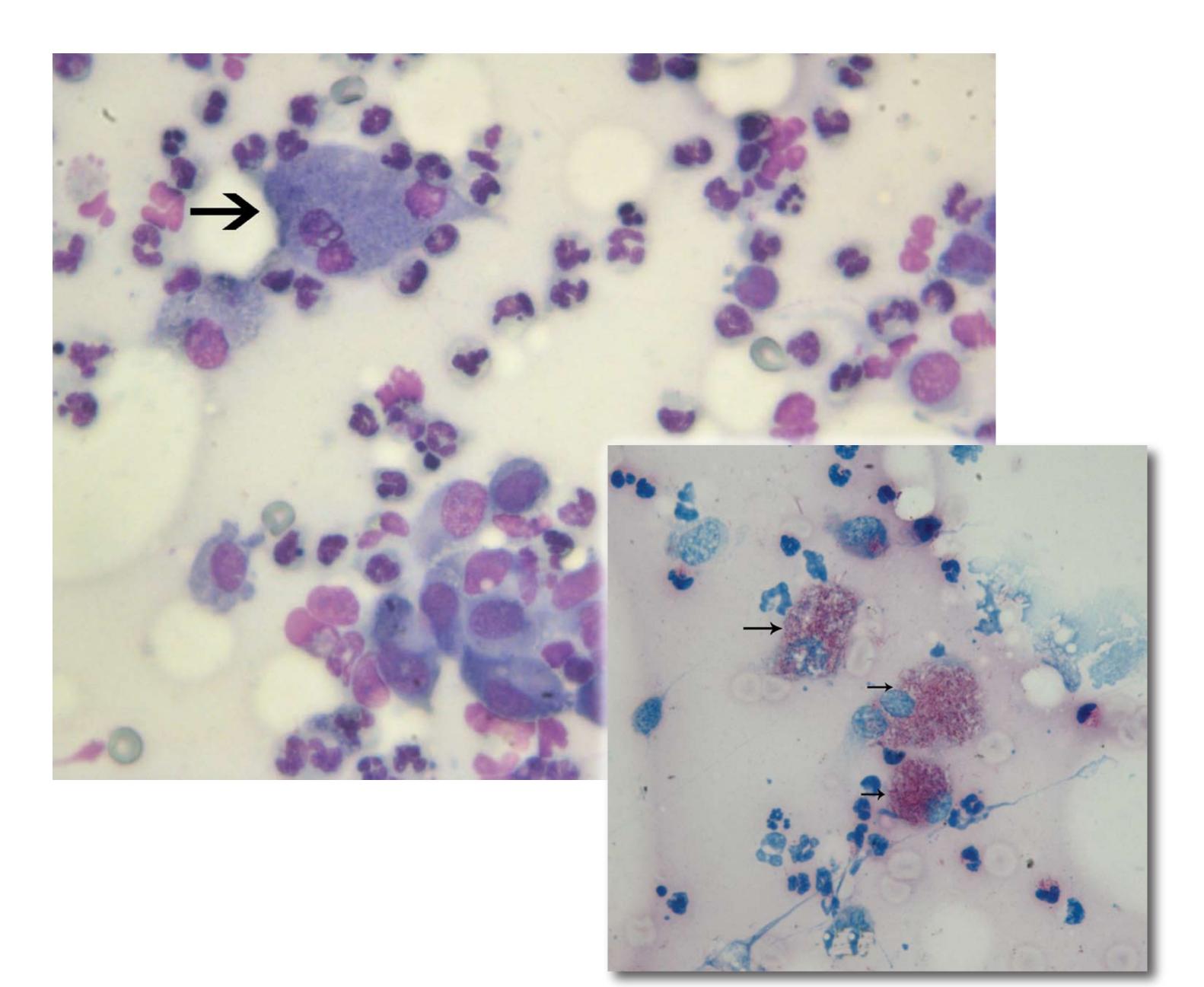


Fig.6. Cytology. Mixed inflammatory reaction. The arrow showed a histiocyte with foamy cytoplasm (Giemsa stained). Inset. Positive acid-fast mycobacteria. Fite stained.

### **BRIEF DISCUSSION.**

Nodular and ulcerative dermatitis in dogs can be related with several conditions, such as: immune-mediated, infectious and neoplastic or no neoplastic conditions. This nodular and ulcerative dermatitis was the most common presentation seen in this study. Similar to previous studies, shortcoated dogs were most affected. Moreover, in 85% of the cases, the dorsal part of the pinna was involved as others had reported it and supporting the hypothesis that inoculation via insect bite may play a role. Furthermore, 65% of our cases occurred during the rainy season.

Finally, the histopathology features and the positiveness with Fite stained were similar to the previous reported in the literature.



#### LITERATURE.

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