

SUMMARY OF THESIS*

BRANDÃO FILHO, Sinval Pinto – Ecoepidemiologia da leishmaniose tegumentar americana associada à *Leishmania (Viannia) braziliensis* na zona da Mata Atlântica do Estado de Pernambuco, Brasil. São Paulo, 2001. (Tese de Doutorado – Instituto de Ciências Biomédicas da Universidade de São Paulo).

ECOEPIDEMIOLOGY OF CUTANEOUS LEISHMANIASIS CAUSED BY *Leishmania (Viannia) braziliensis* IN THE ATLANTIC RAIN FOREST REGION OF PERNAMBUCO, BRAZIL

The objective of the present study was to characterise the epidemiology of cutaneous leishmaniasis caused by *Leishmania (Viannia) braziliensis* in an area of old colonisation located in the Atlantic Forest region of Pernambuco State, Brazil. Parasitological and epidemiological surveys of both the human and animal populations of Amaraji municipality were performed from the beginning of 1996 to July 2000. Wild animals and sand flies were captured in silvatic and sinantropic habitats. *L. (V.) braziliensis* was the only species identified in isolates from man and 38 isolates identified with isoenzymes belonged to four zymodemes but the same serodeme. A total of 309 new cases of dermal leishmaniasis were registered during the study period. There was an increased burden of infection irrespective of the age, sex or occupation of the local human population. Amastigotes were seen in stained spleen smears of 5.7% (26/460) of the silvatic mammals. 17.6% of these same animals were positive in a polymerase

chain reaction (PCR) using kDNA primers that are specific for the subgenus *L. (Viannia)*. A total of 5 isolates from *Bolomys lasiurus* and 1 of *Rattus rattus* were identified as *L. (V.) braziliensis* and besides this 14.6% of *B. lasiurus* were positive in the kDNA PCR test. These results incriminate this rodent as a classical primary silvatic reservoir in the region. *Nectomys squamipes* is also a possible primary reservoir in higher forest as 28.1% (43/153) were positive with the same primers. In this same kDNA PCR test, 19.67% (12/61) of the dogs and 13.8% (8/58) of the equines also presented positive reactions. Of the total phlebotomine sand fly fauna 97.84% were *Lutzomyia whitmani*, indicating that it is probably the principal vector involving in the zoonotic cycle. This species was abundant in all the habitats including the peridomicillary one. *Lutzomyia complexa (Psychodopygus complexus)* is present in silvatic habitat and may be a principal vector involving in the enzootic cycle.

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