

Infrequency of gross skin lesions among Panamanian forest mammals with cutaneous leishmaniasis

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SUMMARY

Natural leishmanial infections among feral mammals in the Republic of Panama were studied in relation to gross skin alterations. Three dermatotropic species of *Leishmania*, *L. braziliensis*, *L. mexicana* and *L. hertigi*, isolated from 230 sylvatic animals of 5 mammalian orders were involved. In 205 (89%) of the cases there were no gross skin alterations. Cryptic infections of all three leishmanial species among wild animals were confirmed by culture and hamster inoculation. This type of infection was always present in the sloths, *Choloepus hoffmanni* and *Bradypus infusatus*, infected with *L. braziliensis* and in the porcupine, *Coendou rothschildi*, infected with *L. hertigi*. Suggestive skin alterations were encountered in 10 (4%) of infected animals. Only 15 (7%) of infected animals exhibited typical leishmanial lesions. It was possible to correlate skin depigmentation with the course of leishmanial infection in one animal, a young kinkajou, *Potos flavus*.

INTRODUCTION

Panamanian forest mammals naturally infected with *L. braziliensis* without gross skin alterations were found for the first time in 1956. The infections were discovered by heartblood cultures from several spiny rats, *Proechimys semispinosus*, although the presence of the parasite in the skin was not demonstrated (Gorgas Memorial Laboratory, Annual Report for 1956). Ten years later *L. hertigi* was discovered in skin smears from a porcupine, *Coendou rothschildi*, without manifesting any gross skin lesions. The scarcity of the parasite in the porcupine skin led to the development of a technique in which cultures are made from skin snips of animals (Herrer, Thatcher & Johnson, 1966). The intensive use of this technique during the following nine years showed that the absence of gross skin alterations is a common phenomenon in Panama among feral animals naturally infected with three dermatotropic species of *Leishmania*.

This paper deals with the gross appearance of the skin observed in forest mammals found with natural leishmanial infections in Panama between April 1965 and September 1974, and emphasizes the frequency of infections which do not produce gross skin alterations.

