LUTZOMYIA MIGONEI (FRANÇA, 1920) NATURALLY INFECTED WITH PERIPYLARIAN FLAGELLATES IN BATORITÉ, A FOCUS OF CUTANEOUS LEISHMANIASIS IN CEARÁ STATE, BRAZIL

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In a previous note, A. C. R. Azevedo et al. reported the finding of Lutzomyia whitmani naturally infected with Leishmania (Viannia) braziliensis in Baturité, a focus of cutaneous leishmaniasis in Ceará state. This species of sandfly was the predominant in the area and was found to be very anthropophilic, being collected outdoors close to houses. The authors suggested it to be an important local vector (1990, Mem. Inst. Oswaldo Cruz, 85: 251).

Following our studies on the transmission of that disease in the same area, we report here the finding of another species of sandfly – Lutzomyia migonei – naturally infected.

The insects were collected around and close to houses (up to 10 m distance) using humans and horses as baits. Dissecting 405 females of L. migonei we found one infected. Paramastigotes in the hindgut and promastigotes in the midgut and cardia were observed. Although we did not identify the flagellates biochemically, we regard them as belonging to a Leishmania of the braziliensis complex because of their sites of development in the sandfly, being Leishmania (V.) braziliensis, since only this species has been isolated from patients in Baturité.

In studies performed long ago in endemic areas of cutaneous leishmaniasis in São Paulo state, S. B. Pessoa & B. R. Pestana (1940, Acta méd., Rio de Janeiro, 5: 106-111) reported that L. migonei was found infected with promastigotes in nature. The parasites were not isolated and identified, but this sandfly was incriminated as the most suspected local vector.

In 1955, during epidemiological studies in Ceará state, L. M. Deane & M. P. Deane (Rev. Brasil. Biol., 15: 83-95) verified that in mountainous areas L. whitmani and L. migonei were found in high numbers and remarked that their distribution coincided with that of cutaneous leishmaniasis.


The finding of a natural infection in the abundant and also anthropophilic L. migonei in Baturité, suggests that along with L. whitmani it must be responsible for the local transmission of cutaneous leishmaniasis.

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