DISSECTION OF SAND FLIES (DIPTERA, PSYCHODIDAE) FOR THE DETECTION OF *Leishmania* PROMASTIGOTES (KINETOPLASTIDA, TRYPANOSOMATIDAE) IN URBAN LEISHMANIASIS TRANSMISSION FOCI IN CAXIAS, MARANHÃO, BRAZIL

MARIA RAIELY BARBOSA DA CUNHA, ANTONIA SUELY GUIMARÃES E SILVA, VALÉRIA CRISTINA SOARES PINHEIRO, ROSA CRISTINA RIBEIRO DA SILVA

UNIVERSIDADE ESTADUAL DO MARANHÃO, *CAMPUS* CAXIAS, MARANHÃO, BRAZIL

In endemic regions, the investigation of *Leishmania* in the gut of sand flies, the detection of DNA and the quantitative infection rate are of fundamental importance to explain the role of the species as a vector. The aim of this study was to detect *Leishmania* promastigotes in sand flies and to analyze the monthly distribution of vectors in urban areas of Caxias, Maranhão. The collections were carried out in two districts (Bacuri and Pirajá) over eight months during the dry and rainy seasons. The insects were collected with CDC light traps and the live females were dissected to expose the gut. A total of 5,997 sand flies were collected, of which 70% were males and 30% females belonging to the species *Lutzomyia longipalpis*, *Nyssomyia whitmani, Evandromyia lenti* and *Ev. evandroi*. The vector *Lu. longipalpis* was the most abundant species (98 %), which confirms its adaptation to urban areas and its resistance to climatic variations, as this species was captured in both the dry and rainy seasons. Of the total number of captured females (N= 1,782), the gut was dissected from 389 (84.6 % *Lu. longipalpis*, 13.1% *Ev. evandroi* and 2.3% *Ny. whitmani*), and no *Leishmania* promastigotes were detected. It is possible that the negative result is due to the low number of females examined. Although the number of specimens collected was relatively high, not all were dissected as several females died over time, reducing the number of samples examined. However, the fact that no infected females were found cannot be considered a definitive result, as the technique of dissecting female sand flies is considered to be not very sensitive. We conclude that there is a large number of sand flies vectors in the urban area of Caxias and that the non-detection of promastigotes in females does not indicate that the parasites are not present in the region. Furthermore, the main vector of L. infantum, the species Lu. longipalpis, is well adapted to the urban areas of Caxias.

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