CHAGAS DISEASE: FROM UNKNOWLEDGE TO THE RISK OF VECTOR TRANSMISSION

PAOLA CAROLAYNE BARBOSA SANTOS[1], CRISTINA BORGES DOS SANTOS[1], GILMAR RIBEIRO JUNIOR[2,3], MITERMAYER GALVÃO REIS[2,4,5], FRED DA SILVA JULIÃO[1]

[1]INSTITUTO FEDERAL BAIANO (IF BAIANO) - *CAMPUS* SANTA INÊS, BAHIA, BRAZIL
[2]PATHOLOGY AND MOLECULAR BIOLOGY LABORATORY, GONÇALO MONIZ INSTITUTE (IGM) - FIOCRUZ-BA, SALVADOR, BAHIA, BRAZIL;
[3]CHAGAS DISEASE FIOCRUZ TRANSLATIONAL PROGRAM (FIO-CHAGAS), OSWALDO CRUZ FOUNDATION - RIO DE JANEIRO (FIOCRUZ-RJ), BRAZIL;
[4]FACULTY OF MEDICINE OF THE FEDERAL UNIVERSITY OF BAHIA (FMB-UFBA), SALVADOR, BAHIA, BRAZIL.
[5]YALE UNIVERSITY, CONNECTICUT, USA;

Chagas disease is a parasitic infection caused by *Trypanosoma cruzi* and has historically been transmitted by insect vectors of the Triatominae subfamily. The objective of this study was to report the risk of vector transmission of Chagas disease in the municipality of Santa Inês, Bahia. Located in the southwestern region of Bahia, within the Jiquiriçá Valley, Santa Inês has no recorded autochthonous cases of Chagas disease and is therefore classified as a silent area for this condition. However, in 2022, following an incident in which a child was bitten by a Triatominae bug, the Parasitology Laboratory of the Instituto Federal Baiano – Campus Santa Inês initiated investigations about the presence of these vectors in the region. After an initial screening, the collected insects were sent to the Pathology and Molecular Biology Laboratory (LPBM) at the Gonçalo Moniz Institute (FIOCRUZ), where, by 2024, 34 specimens of barber bugs—identified as *Panstrongylus geniculatus* and *Triatoma melanocephala* were confirmed. These specimens were captured on a private farm, at a rural educational institution, in the municipal headquarters, and in three other rural locations. Reports generated by the LPBM were subsequently sent by IF Baiano to the Municipal Health Department, alerting authorities to the need for enhanced surveillance. The spatial distribution of the barber bugs underscores a potential risk for vector transmission of Chagas disease in Santa Inês, Bahia. These findings highlight the importance of continuous monitoring and the implementation of preventive measures to mitigate the risk of Chagas disease in the region.

Keywords: Triatominae, Parasitology, *Trypanosoma cruzi*