

## **INFLUENCE OF ENVIRONMENTAL FACTORS IN VISCERAL LEISHMANIOSE IN RIO GRANDE DO NORTE**

Angela P Cabral, Wilton Queiroz, James D. Barbosa, Selma M B Jerônimo  
Departamento de Bioquímica, Centro de Biociências, Universidade Federal do Rio Grande do Norte

In Brazil, visceral leishmaniasis (VL) or kalazar is caused by the protozoa *Leishmania chagasi*. Leishmania is transmitted to humans by vector, the phlebotomus *Lutzomyia longipalpis*. Because of the increase in VL cases in Rio Grande do Norte is necessary to determine the environmental factors influencing the vector proliferation. The spatial aggregation is used to analyze the environment factors involved in a particular event. The information is gathered by mapping of the cases using tools of geographic localization system (GIS). In this study, we obtained the geographic coordinates of 205 houses of endemic areas with 138 cases of kalazar. The mapping and analysis of the data indicated that the cases are located in the proximity of draining and plain areas. Climate factors in the state also were analysed. The incidence of rain also favors the disease development. Among the environmental variants as such animals, garbage disposable, drinking water, only the presence of cattle was significant. The perspectives are to evaluate more houses to check the results and available the others factors.

**Supported by:** NIH, TMRC

**Key Words:** space aggregation, Visceral Leishmaniasis, GIS.