VITÓRIA QUEIRÓZ FERREIRA[1], THIAGO VASCONCELOS DOS SANTOS[1], FERNANDO TOBIAS SILVEIRA[1], MARLIANE BATISTA CAMPOS[1]

1. LABORATÓRIO DE LEISHMANIOSES PROF. RALPH LAINSON, SEÇÃO DE PARASITOLOGIA (SAPAR), INSTITUTO EVANDRO CHAGAS, SECRETARIA DE VIGILÂNCIA EM SAÚDE E MEIO AMBIENTE/MINISTÉRIO DA SAÚDE, ANANINDEUA, PARÁ, BRASIL

Introduction: The Leishmania-macrophage interaction is one of the most important and determining steps in the establishment of infection. In this sense, in vitro studies have been aimed at better understanding the mechanisms involved in this interaction. Objective: To evaluate in vitro the infectivity of amastigote forms of *L (L.) amazonensis*, isolated from different clinical forms of LTA in the infection of peritoneal macrophages from BALB/c mice. **Material and Methods**: 9 strains from clinical cases of patients with ATL treated at the Instituto Evandro Chagas (SVSA, MS), Ananindeua-Pará, were distributed into 3 groups: Localized Cutaneous Leishmaniasis (LCL), Borderline Disseminated Cutaneous Leishmaniasis (LCDB) and Diffuse Anergic Cutaneous Leishmaniasis (LCAD). *Leishmania* promastigote strains were cultivated in RPMI until the moment of axenic amastigote transformation to infect macrophages at a ratio of 4 parasites/macrophage. The cultures were incubated at 35ºC and 5% CO2 and after 24h, the coverslips were stained with Giemsa to count the number of infected macrophages, number of parasites and determination of the infection index (II). Statistics were performed in the STATISTICA program with ANOVA-MANOVA and Ducan correction test. **Results**: There was variation in the % of infected macrophages LCL (68%), LCDB (80%) for LCAD (87%) with a difference ($p < 0.05$) between them and a higher % in LCAD strains. In relation to the average number of parasites/macrophage of 5 parasites/macrophage with LCL and LCDB, in cases of LCAD the average was 11 with a difference between LCL and LCDB ($p = 0.003$). In II, it was observed: LCL (345), LCDB (400) and LCAD (779), a significant difference between LCL x LCDB ($p = 0.0001$), LCL x LCAD ($p < 0.0001$) and LCDB x LCAD ($p < 0.0001$). **Conclusion**: BALB/c macrophages are susceptible to infection by axenic amastigote of *L. (L.) amazonensis* with intra-specific variation, with greater infectivity for LCAD strains, the most severe clinical form of ATL.

Keywords: *L (L.) amazonensis,* axenic amastigote, Diffuse Anergic Cutaneous Leishmaniasis.

Supported By Instituto Evandro Chagas, Secretaria de Vigilância em Saúde e Meio Ambiente/Ministério da Saúde