

Level Of Adipokines In Hamsters Infected With *L. chagasi*

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INTRODUCTION: Adipokines are proteins and peptides produced mainly by adipocytes, which participate of energy homeostasis. These molecules can to affect the appetite, the energy consumption and the tissue sensitivity to insulin. In addition these metabolic effects, adipokines can regulate the immune response and have a role in the pathogenesis of some diseases, including visceral leishmaniasis (VL). **OBJECTIVES:** To investigate the role of adipokines in pathogenesis of VL using hamsters infected with *Leishmania chagasi* as an experimental model. **MATERIAL AND METHODS:** Golden hamsters (*Mesocricetus auratus*) were infected with *L. chagasi* (10^5 parasites intradermic injected in the ear). Controls ($n = 16$) and infected animals ($n = 17$) were followed for 8 months and the body weight was monitored weekly. After 4 and 8 months, hamsters were euthanized and serum, spleen, liver and adipose tissue were removed and stored for subsequent analysis. The parasite load was evaluated by the limiting dilution technique, in the spleen and liver. The serum levels of leptin and adiponectin were quantified by commercial kit of enzyme-linked assay. **DISCUSSION AND RESULTS:** Infected hamsters exhibited parasites in spleen ($2.6 \times 10^8 \pm 8.0 \times 10^8$ parasites) and liver ($1.7 \times 10^6 \pm 5.8 \times 10^6$ parasites). There were no differences between controls and infected hamster in the levels of leptin and adiponectin after 4 ($46,85 \pm 8,877$ pg/mL, $56,52 \pm 16,73$ pg/mL, $P=0,620$ and 1.363 ± 0.4541 µg/mL, 1.607 ± 0.4165 µg/mL, $P= 0.703$, respectively) and 8 ($22,37 \pm 7.328$ pg/mL, $26,37 \pm 6,856$ pg/mL, $P= 0.705$, and $1,576 \pm 0.4810$ µg/mL, 1.011 ± 0.2957 µg/mL, $P= 0.358$, respectively) months of infection. There was no correlation between parasite loads in both the spleen and the liver, with the levels of adipokines. **CONCLUSIONS:** The infection of hamsters by *L. chagasi* did not lead to changes in adipokines levels after 4 and 8 months of infection.

Key Words: Leptin, Adiponectin, *L. chagasi*
Financial support: FAPESB and CAPES