

## Morphological alterations of central neural system induced in mice by *Trypanosoma cruzi*

Ferreira, TAA., Mata, JR., Mata, FR., Souza, MCR. and Ferreira, TAA.

Universidade Federal de Goiás

The first information of Central Neural System (CNS) parasitism by *Trypanosoma cruzi* (T. cruzi) was described in humans by Carlos Chagas, and children were more susceptible to Chagas' disease. This disease is distributed in Latin America and affects millions of peoples causing high mortality. We verified the effects of *T. cruzi* in neural system of mice. Were available the body weight and histological alterations of mice's neural system inoculated to 10 days old with 4.000 or 20.000 trypomastigotes of *T. cruzi* and also the parasitemy of the inoculated animals 25 day old with and without immunosuppression. The animals were sacrificed and injected with paraformaldehyde 4%. Encephalic and medullar fragments were processed, thickened and colored with hematoxylin/eosin. The parasitemy was major in inoculated animals and immunosuppressed. Inoculated animals present minor body weight rather than the controls. In encephalon was observed integers trypomastigote niche, glial nodes and perivascular infiltration. In medulla was not found histological alterations. In conclusions, young animals are more susceptible to *T. cruzi* infection, putatively associated with immature immune system and to major permeability of capillary on this phase of aging. In general mode, the little parasitemy found in the choroid plexus putatively associated to major quantity of microglia in this region.

**Financial support:** FUNAPE, CNPq, CAPES, IACT.