# Acute and chronic complications in experimental trichuriasis associated with bacterial translocation

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Trichuriasis mainly affects countries with poor basic sanitation. *Trichuris trichiura* is a human parasite and *T. muris* is used like excellent experimental model. Infection can be asymptomatic, with non-specific symptom, serious complications, like *Trichuris* dysentery syndrome (TDS) and rectal prolapse, depending on the parasite load. Our group showed that in chronic phase, the presence of nematode in large intestine causes intestinal microbiota imbalance, intense inflammatory infiltration alteration in the immune profile systemic (Th1/Th2/Th17) and invasion of gut bacteria through the intestinal mucosa (bacterial translocation). Aiming contribute to the knowledge of this parasitosis, we followed the experimental infection with 50 *T. muris* eggs in C57BL6 mice, to analyze the evolution of the acute to the chronic phase. The groups were euthanatized with 90 min., 10,17,22 and 35 days post-infection (p.i). We evaluated the body temperature, weights (body and cecum), cytokines from peritoneal macrophages and histological analysis of the cecum (CEUA-059/2018). During the infection, all maintained a stable temperature (non-infected ≅32.8°C/ infected ≅33.7°C). The infected lost weight between 10th-22nd day p.i, recovering on the 35th day. The cecum was heavier and thicker from day 10 onwards. At 22 days, IL-6, IL-10, IFN-y, and TNF predominated from the 17th to the 35th day, where peritoneal macrophages increased. New analyzes are being carried out. Based on the results, we suggest that there is an important role caused by the bacterial translocation in association with the inflammatory process, becoming marked from the 10th day p.i, when the worm already causes lesions in the intestinal epithelium.

Keywords: Helminthology; Trichuriasis; bacterial translocation

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