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Cytokine Expression at the Inoculation Site and Nea Animal Model Infected with Metacyclic Trypomasti *Trypanosoma cruzi*

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Abstract: Background. *Trypanosoma cruzi* infection is induced b
contaminated feces containing metacyclic trypomastigotes acquired
skin. Natural unspecific and adaptive humoral and cellular immune
important role in controlling primary infection.

Objective: To determine the cytokine profile at the inoculation site a
as draining lymph nodes, as well as the heart and serum, throughout
phases in mice infected with metacyclic *T. cruzi* trypomastigotes.

Material and methods. Balb/c mice were intradermally inoculated w

metacyclic trypomastigotes of *T. cruzi*. The RT-PCR technique was used to determine the cytokine profile at the inoculation site, draining lymph nodes and to determine cytokines in serum.

Results. A poor induction of cytokines within the two weeks after infection at the inoculation site. On the other hand, in draining lymph nodes, cytokines IL-12, TGF-beta were detected from the first day after infection. In the draining lymph nodes, an inflammatory and anti-inflammatory cytokine pattern was identified. In the blood, cytokines IL-4, IL-10, IL-12 and IFN-gamma were detected from the first day after infection with the notorious exception of IL-2. **Conclusion.** A poor and late induction of cytokines such as IFN-gamma and IL-12 was observed at the inoculation site. Inadequate immune responses in lymph nodes. In addition, the pattern of cytokines strongly depended on the kind of tissue.

Key words: [Trypanosoma cruzi](#), [American trypanosomiasis](#), [inoculation site](#), [Chagas disease](#)

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