COMPARATIVE DISTRIBUTION OF STAGE-SPECIFIC EPITOPES OF *Trypanosoma cruzi* AMASTIGOTES AND TRYPOMASTIGOTES IN CARDIAC MUSCLE OF *Calomys callosus*

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An experimental model of Chagas' disease was developed to obtain information about the reactivity pattern *Trypanosoma cruzi* amastigote and trypomastigote epitopes in cardiac muscle of *Calomys callosus* infected with two major lineages of the parasite.

Calomys callosus were infected with *T. cruzi* Y, CL or G strain trypomastigotes and the parasitemia determined periodically by a direct microscopic procedure at the acute phase. Animals were sacrificed and hearts were removed, fixed and embedded in paraffin, 4-6 µm thick sections were processed for confocal immunofluorescence microscopy. Monoclonal antibodies (Mab) raised against *T. cruzi* forms were used based on the previously described reactivities [1]. Mab 2C2, which reacts with a carbohydrate epitopes in Ssp-4, a major surface glycoprotein of amastigotes showed a fluorescent pattern homogeneously distributed over amastigote surface in animals infected with G strain whereas in animals infected with Y and CL strain showed irregular and fragmented staining. Mab 4B9 and 3B9 that recognize epitopes on Ssp-4 different from Mab 2C2 presented the same distribution observed for Mab 2C2 in all strains. Mab 1D9 and 2B7, which recognize another carbohydrate on Ssp-4 showed cytoplasmic fluorescent dots in amastigotes and negative plasma membrane in animals infected with Y and CL strain, reactivity of plasma membrane was observed in amastigotes of animals infected with G strain. Mab 3B2, that is specific for trypomastigotes [1], stained the plasma membrane of flagellated forms in animals infected with both Y and G strains whereas amastigotes were not labeled.

Polymorphic antigen expression of *Trypanosoma cruzi* has been reported by several authors. Although the functions of the amastigote surface components are not fully understood, this polymorphism could be involved in mammalian cell invasion or involved in a mechanism developed by the parasite for protection against inflammatory cells.

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