

P0312      *TRYPANOSOMA CRUZI* STRAINS OF DIFFERENT BIODEMES: PATHOGENICITY, HISTOTROPISM AND FIBROSIS INDUCTION IN THE *CALOMYS CALLOSUS* (RODENTIA CRICETIDAE) .

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The model of *Calomys callosus* has been used in different studies of experimental Chagas' disease. OBJECTIVE: In the present study, the importance of different biodesmes in the evolution of the infection, the tissue tropism, the characteristics of the fibrotic-inflammatory lesions of the heart and skeletal muscle, has been investigated. MATERIAL AND METHODS: Three groups of *C. callosus* were infected respectively with the strains of *Trypanosoma cruzi* representative of the three different Biodesmes: Type I (Y strain), Type II (21 SF strain) and Type III (Colombian strain). For each group, normal calomys were also used as controls. RESULTS: The strains Types I and II (Y and 21 SF) determined moderate lesions mostly in the myocardium, with low parasitism, a rapid course and total regression of the lesions until 60 days. Type III strain (Colombian), was the most pathogenic and the lesions were more intense in the skeletal muscle with intense parasitism and inflammatory lesions. Proliferation of fibroblasts and matritial deposits, followed by interstitial fibrosis was present. Progressive regression of the collagen deposits occurred spontaneously. Both the evolution and the regression of the fibrosis has been quantitatively evaluated by morphometry confirming these aspects. CONCLUSIONS: The peculiarities of the lesions determined by the strain of Type III in the calomys model, confirms the importance of the host/parasite interaction in the determination of the lesions. This peculiar behavior could reflect an affinity of Type III strain, Z1 (*T.cruzi* I), that has a preferential association with the sylvatic cycle of parasite, with this natural hosts, a known reservoir of *T. cruzi*.