INTRODUCTION: Reinfections with Trypanosoma cruzi are considered as an aggravating factor for Chagas disease morbidity. In the present work we investigated the influence of successive inoculations with clones from T. cruzi Colombian strain exhibiting different degrees of virulence: Col-C1 (high virulence); Col-CS (medium virulence); Col-C8 (low virulence), upon the chronic myocarditis, as well as upon the humoral and cellular immune responses. MATERIALS AND METHODS: Infected mice from three groups were evaluated during the acute phase. Mice infected with Col-CS and Col-C8 were evaluated from 150 days (chronic phase). Specific serology, Elisa reaction and DTH cutaneous test were also evaluated. Mice submitted to triple infection have been studied on the 115th to the 130th days following first inoculation and on the 175th day from the first infection. RESULTS: Immunoglobulins levels (IgM and IgG2a) were higher in animals submitted to triple infection. DTH test showed a higher intensity on the period of 48 hours in animals with triple infection, and at 24 hours in mice with single infection. CONCLUSION: In conclusion reinfections with T. cruzi are an aggravating factor for the evolution of Chagas myocardopathy in the murine model of Chagas disease, even when reinfections were performed with clones of the same strain presenting different degrees of virulence.