CLONAL STRUCTURE OF THE COLOMBIAN STRAIN OF Trypanosoma cruzi (BIODEME
TYPE III): BIOLOGICAL, ISOENZYMATIC AND HISTOPATHOLOGICAL ANALYSIS OF SEVEN
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Colombian strain of Trypanosoma cruzi, prototype of Biodeme Type III and Zymodeme 1,
representative of the taxa T. cruzi I, presents well defined biological and isoenzymatic characters, as
well as pathogenicity and tissue tropism. The clonal structure of this strain was studied in order to
characterize its populations and to establish its homogeneity or heterogeneity. Seven clones were isolated
and compared with the parental strain in their biological isoenzymatic and histopathological features.
The seven clones presented the basic characteristics of Biodeme Type III and zymodeme Z1. The
parental strain and four clones presented elevated virulence, with high mortality rate until 30 days (100%).
Mortality was low (7 to 23%) in the other three clones. Histopathological lesions were characteristics
of Type III strains with predominance of skeletal muscle parasitism and, to a lesser degree, in
myocardium, exhibiting extensive necrotic-inflammatory lesions from 20th to 30th day of infection. In
conclusion, clonal structure of the Colombian strain is homogeneous. Although varying in virulence
the zymodeme profiles are maintained, so its high pathogenicity. The present results suggest the
presence of “principal clones” in the populations of the Colombian strain, which are responsible for
the pattern of lesions seen in experimental animals and, probably, influencing in the manifestations of
Chagas disease in the endemic areas in which predominates this type of strain.