Diagnostic value of detecting specific IgA and IgM with recombinant Trypanosoma cruzi antigens in congenital Chagas' disease

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The present study compares the early diagnosis of congenital Chagas' disease with a DOT assay using recombinant antigens with immunofluorescence antibody testing (IFAT) and an enzyme linked immunosorbent assay (ELISA). The studies were performed using cord blood and sera of 12 infected newborns (group I) and 12 uninfected ones born to Trypanosoma cruzi-infected mothers (group II). Conventional IFAT and ELISA showed positive results for IgG at high titers, in infants and mothers of both groups; IgA antibodies were detected by ELISA in four of the infected infants and IgM was detected in two of them. All sera of the uninfected infants were negative for IgA and IgM in the ELISA. Application of a DOT assay using eight recombinant T. cruzi antigens allowed detection of specific IgA in the cord blood of six of the infected cases and IgM in eight of them. Repetition of these serologic tests in samples obtained during a monthly follow-up gave positive results for IgA in two of the initially ne