Comparative evaluation of direct agglutination test, rK39 and soluble antigen ELISA and IFAT for the diagnosis of visceral leishmaniasis.

Pedras MJ, de Gouvêa Viana L, de Oliveira EJ, Rabello A.

Laboratory of Clinical Research, Centro de Pesquisas René Rachou (CPqRR), Fundação Oswaldo Cruz (FIOCRUZ), Avenue Augusto de Lima, 1715, 30190002 Belo Horizonte, MG, Brazil.

Five serological tests for the diagnosis of visceral leishmaniasis (VL) were compared: a direct agglutination test (DAT) based on freeze-dried antigen (DAT-fd); a locally produced DAT (DAT-LPC); an IgG ELISA against rK39 (ELISA-rK39); an IgG ELISA for Leishmania chagasi (ELISA-L. chagasi); and an IgG IFAT against L. chagasi. Serum samples from 88 patients with VL, 20 non-infected individuals and 85 patients with others infectious diseases were evaluated. The sensitivity rates were: DAT-fd, 96.6%; DAT-LPC, 95.5%; ELISA-rK39, 88.6%; ELISA-L. chagasi, 89.8%; and IFAT, 92.0% (P>0.05). The specificity for the control groups varied from 53.3% to 100%. DAT-fd had the highest efficiency (97.4%), followed by DAT-LPC (91.7%) and ELISA-rK39 (90.7%). Our data suggest that DAT-fd, DAT-LPC and ELISA-rK39 are useful tests for the diagnosis of VL and could replace IFAT as the routine diagnostic test in Brazil.

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