

## Short Report

### Failure to find anti-component 5 antibodies in animals infected with *Trypanosoma cruzi*

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The importance of different mammalian species as reservoir hosts or experimental models of Chagas disease (or both) has been shown by several authors (BARRETTO, 1979; ANDRADE & ANDRADE, 1979). The detection of a specific serological marker in infected animals would be of great interest for epidemiological and immunopathological purposes.

In previous studies OROZCO *et al.* (1984) produced monoclonal antibodies against a species-specific antigen of *Trypanosoma cruzi*, called component 5 (AFCHAIN *et al.*, 1979). Using these antibodies, LEMESRE *et al.* (1986) proposed a competitive enzyme immunoassay (CEIA) for specific diagnosis of Chagas disease. We have used the CEIA to investigate the presence of anti-component 5 antibodies in sera of opossums naturally infected with *T. cruzi* and dogs, rabbits and rats experimentally infected.

To determine the threshold of positivity of the test for the different mammalian hosts, sera from uninfected animals of each studied species were used. The sera from 51 Venezuelan patients with Chagas disease were also tested in the same experiment (positive control). About 90% of the patients showed significant levels of anti-component 5 antibodies. However, only 4 of 40 sera of infected dogs, one of 25 opossums, and 3 of 15 sera of infected rats showed significant results which were near the threshold of positivity. In the group of rabbits infected with *T. cruzi*, 10 of 24 tested sera presented a significant positive value, again close to the threshold of positivity. There was no association between these results

and the phase (acute or chronic) of the infection.

The sera of infected animals showing a positive result in the CEIA were further tested by immunoelectrophoresis against a crude antigenic extract of *T. cruzi* (AFCHAIN *et al.*, 1979). Although most of these sera recognized different bands of the *T. cruzi* extract, none of them reacted with component 5.

These findings suggest that the immune response in animals naturally or experimentally infected with *T. cruzi* is different from that observed in human Chagas disease.

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