

**VALIDATION OF AN ANTI-*TRYPANOSOMA CRUZI* IMMUNOCHROMATOGRAPHIC TEST IN TRIATOMINE FECES SAMPLES COMPARED TO TWO DIFFERENT METHODOLOGIES (PCR AND ELISA).**

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Immunochemical tests, also called rapid tests, are tools for execution, reading, and interpretation of results widely used in medicine. Immunochemical tests were developed to detect antibodies in a variety of tropical diseases, including Malaria, Leishmaniasis, Schistosomiasis, and Chagas disease. In the literature, immunochemical tests are also found for the detection of a variety of antigens, such as BHCG, viral antigens, and more recently, *Entamoeba histolytica* antigens in fecal samples. Antigens from other intestinal protozoa such as *Giardia lamblia* and *Cryptosporidium parvum* have also been identified in fecal samples. In this context, this study aims to develop and optimize an immunochemical test to be used on triatomine feces for the initial screening of the infection rate of these insects in endemic areas. In this study, two sensitive and specific techniques were performed to validate the tested chromatographic strips: ELISA and conventional PCR. The obtained results demonstrate that the strips showed a positive test band in 10 fecal samples of *Triatoma infestans* experimentally infected, while 10 negative fecal samples of the same species of triatomines did not mark the test band. The ELISA tests were able to detect  $10^4$  parasites per well of the plate, suggesting that this is the detection limit of this technique using the chosen pairs of antibodies for the assay. The PCR assays also demonstrated 100% positivity in positive samples and 100% negativity in negative samples. It is concluded that the chromatographic test is promising in the tested model, requiring field testing using other species of triatomines, as well as a more significant number of specimens to confirm its effectiveness in epidemiological screenings.

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