EVALUATION OF RECOMBINANT AND CRUDE ANTIGENS USING IMMUNOBLOTTING FOR *Strongyloides stercoralis* INFECTION DIAGNOSIS

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Strongyloides stercoralis infection is usually asymptomatic but can develop into a severe condition in immunocompromised patients, such as alcoholics, making its diagnosis and monitoring essential. Parasitological methods have low sensitivity and are limited by the larval output. Immunoblotting has demonstrated elevated sensitivity and specificity in several infections' diseases, but there is still no defined standard of immunoreactive bands in the strongyloidiasis diagnosis. The aim of this study is to evaluate the sensitivity and specificity of *S. stercoralis* immunoblotting in the detection of specific IgG and IgA1 antibodies using *S. stercoralis* (SsS) and *S. venezuelensis* (SvS) soluble antigens, *S. venezuelensis* membrane antigen (SvM) and the recombinants r-Ss-NIE-1 and rSsIR. There were selected 50 male chronic alcoholic patients from a previous published study. Among them, 15 tested negative for any parasitic disease, while 35 were monoparasitized with *S. stercoralis* (n = 20), *S. mansoni* (n = 8) or Hookworm (n = 7). For diagnosis, there were selected bands with sensitivity and specificity greater than 50 and 80%**,** respectively. Immunoreactivity varied according to the tested antigens and isotypes. The membrane antigen of *S. venezuelensis* showed the best diagnostic performance, with 100% sensitivity for both IgG and IgA1 and specificities of 90.0 and 93.3%, respectively. The 26 and 75 kDa bands demonstrated high diagnostic potential. In contrast, the recombinant antigens r-Ss-NIE-1 and rSsIR exhibited high cross-reactivity rates, especially SsIR (87%). The findings in this study indicate that IgA1 detection with immunoblotting can be used in *S. stercoralis* diagnosis. Also, the 17, 26, 75 and 90 kDa bands of *S. venezuelensis* membrane antigen can be used as references. Additionally, the results highlight the need to develop new and more specific recombinant antigens for use in endemic areas.

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