XVII INTERNATIONAL SYMPOSIUM ON
SCHISTOSOMIASIS
PERSPECTIVES ON SCHISTOSOMIASIS ELIMINATION
NOVEMBER 10-13TH 2024 | SALVADOR - BAHIA

Indicate the format in which you wish to present your work: ☐ Poster ☒ Oral Presentation

TITLE

DIAGNOSIS AND RISK FACTORS ASSOCIATED WITH SCHISTOSOMA MANSONI INFECTION IN A POPULATION LIVING IN AN ENDEMIC AREA OF NORTHEASTERN BRAZIL

AUTHORS

Ramos, R.E.S.[1,3]; Bezerra, L.P.[2,3]; Lima, M.W.S.[3]; Silva, A.C.[3]; Oliveira, M.P.[3]; Silva, W.S.[3]; Nunes, L.K.S.[3]; Carvalho, M.M.V.[3]; Santos, E.D.[3]; Feitosa, A.P.S.[2]; Alves, L.C.[2]; Santos, I.G.A.*[3]; Brayner, F.A.[1,2]

AFFILIATIONS

[1] Center of Medical Sciences, Federal University of Pernambuco, Recife, Pernambuco, Brazil
[2] Department of Parasitology, Aggeu Magalhães Institute/FIOCRUZ, Recife, Pernambuco, Brazil
[3] Human Parasitology and Malacology Research Group, State University of Alagoas, Santana do Ipanema, Alagoas, Brazil

ABSTRACT

Brazil is one of the countries that the World Health Organization (WHO) has set as a goal to eliminate schistosomiasis as a public health problem by 2030. However, the current scenario is that of a country with 19 of the 26 states of the federation being affected by the disease. This study aimed to evaluate the positivity, parasite load, risk factors associated with Schistosoma mansoni infection in the population, and potential foci of parasite transmission in a municipality in Northeastern Brazil. We carried out a cross-sectional study between January and October 2023, in Feira Grande, Alagoas, to determine the positivity and parasite load of Schistosoma mansoni infections using four slides of the Kato-Katz method, in addition to applying a questionnaire to identify risk factors. We also collected intermediate host mollusks and examined their trematode infection. Spatial analysis was used to identify risk areas, and univariate and multivariate logistic regression assessed the association between disease and risk factors. The overall positivity was 5.5% (n=20), with 90% (n=18) presenting a low parasite load. In the univariate analysis, the predictors of infection by S. mansoni were the age group of 25 to 64 years, marital status married or widowed, occupation as farmer, and the use of water sources such as dams, lakes, reservoirs, wells, or wells. After adjusting for confounding factors, only the occupation of farmer remained associated with a higher risk of infection. Of the 22 water collections identified, 12 were classified as breeding sites and one was considered a focus of transmission from a specimen of Biomphalaria glabrata. We identified four risk areas, two of which had breeding sites for Biomphalaria straminea and one with breeding sites for B. glabrata. Despite the low positivity rate, we found all the necessary conditions for the maintenance of the parasite cycle, associated with both the behavior of the population and the presence of breeding sites and transmission foci. Our results indicate that understanding the particularities of endemic areas is crucial for developing prevention and control strategies adapted to each location.

KEYWORDS

Schistosomiasis mansoni; Biomphalaria; Epidemiology; Public health

FINANCIAL SUPPORT

This work was carried out with the support of the Coordination for the Improvement of Higher Education Personnel - Brazil (CAPES) - Financing Code 001