

PREVALENCE OF AMEBIASIS AND GIARDIASIS IN RIVERSIDE COMMUNITIES OF THE PARAGUAY RIVER

MARCOS GABRIEL MACIEL SALAZAR¹, AMANDA DE CASSIA FERREIRA SANTOS¹, RAFAEL VIEIRA DUARTE¹, IDALINA CRISTINA FERRARI², GILSON CARLOS SOARES³, LUIZ CARLOS JÚNIOR ALCANTARA⁴, RODRIGO DIAN DE OLIVEIRA AGUIAR SOARES¹, ALEXANDRE BARBOSA REIS¹

¹UNIVERSIDADE FEDERAL DE OURO PRETO, MINAS GERAIS, BRAZIL, ²UNIVERSIDADE ESTADUAL DO MATO GROSSO DO SUL, MATO GROSSO DO SUL, BRAZIL, ³UNIVERSIDADE FEDERAL DE MINAS GERAIS, MINAS GERAIS, BRAZIL, ⁴INSTITUTO RENÉ RACHOU FIOCRUZ-MINAS, MINAS GERAIS, BRAZIL.

*e-mail: marcos.salazar@aluno.ufop.edu.br

Amebiasis and giardiasis are Socially Determined Diseases (SDD) and represent a challenge for vulnerable populations, including riverside communities. We carried out a cross-sectional study to investigate the prevalence of SDD caused by intestinal parasites in riverside communities in the South and North Sections of the Paraguay River. Two parasitological examination techniques were employed: Hoffman-Pons-Janer (HPJ) and Willis. The HPJ method, also known as the Lutz method, is a versatile method based on spontaneous sedimentation, allowing the observation of helminth eggs and larvae in addition to protozoan cysts and trophozoites. The Willis method is based on the difference in specific density between worm eggs and protozoan cysts and oocysts, allowing these organisms to float on the surface of a NaCl-concentrated solution or sucrose. To carry out the research, 787 fecal collection containers were distributed to the population and 227 returned (28.84%). We found 10,13 and 60,79 cases per 100 inhabitants, respectively, of *Entamoeba histolytica* / *Entamoeba dispar* and *Giardia duodenalis*. The prevalence of amebiasis and giardiasis in the assisted riverside communities was 1.76% and 21,58%, respectively. Moreover, the prevalence of individuals presenting co-infection with other protozoa and/or helminths was 8,37% for amebiasis and 39.20% for giardiasis. Our results highlight the high prevalence of amebiasis and giardiasis in the riverside community population of the Paraguay River, reflecting the unfavorable socioeconomic conditions and the lack of adequate infrastructure. The implementation of epidemiological surveillance programs, health education, and improvement in sanitary conditions is essential to reduce the impact of these parasites and promote the health of the population.

Supported by: UFOP, PROPPI, CAPES, CNPq, FAPEMIG, FINEP, National Institute of Health (NIH-USA) and Marinha do Brasil.

Funding Agency: NIH (USA) – United World Arbovirus Research Network; FAPEMIG – RED-00032-22; CNPq – 420912/2023-1.

Keywords: Parasitic Intestinal Diseases; Prevalence; Cross-sectional studies