Epidemiology

PO - (8503) - EPIDEMIOLOGY, CO-INFECTIONS AND HAEMATOLOGICAL FEATURES OF SCHISTOSOMIASIS IN SCHOOL AGED CHILDREN LIVING LAMBARÉNÉ, GABON

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Background: Schistosomiasis is a highly prevalent parasitic infection in Central Africa, where co-endemicity with other parasitic infections are common, and schistosomiasis outcomes can be affected by those other infections. Therefore, for proper schistosomiasis control, there is a need of epidemiological data accounting for co-infections, too. In this present study, our objective was to determine the epidemiological situation around schistosomiasis in Lambaréné.

Method: A cross-sectional study was conducted among school-aged children living in Lambaréné. Urine filtration exam was performed for the detection of Schistosoma eggs. Kato-Katz and stool culture (Coproculture and Harada-Mori) techniques were used for the detection of soil-transmitted helminths. Detection of Plasmodium spp. and blood microfilariae was performed applying light microscopy. Risk factors for schistosomiasis and factors associated with schistosomiasis were investigated. Hematology parameters evaluated.

Result: A total of 614 school children with available schistosomiasis status were included in the analysis. Mean age was 10.9 (SD=2.7) years, with a 0.95 boy-to-girl sex ratio. The prevalence of schistosomiasis was 26%. No risk factors except human-water contact were associated with schistosomiasis. Only Trichuris trichiura co-infection was associated with an increased odd (aOR=2.3, p-value=0.048) to be infected with schistosomiasis. Full blood counts showed a decrease of hemoglobin level and increase of WBC and platelet levels among the schistosoma-infected children. Hematuria was found associated with schistosomiasis (aOR=14.5, p-value<0.001) and was suitable to predict the disease.

Conclusion: The prevalence of schistosomiasis is moderate in Lambaréné where human-water contact remains the main risk factor and praziquantel available for treatment. Trichuriasis is associated with increased risk to be infected. Children with schistosomiasis exhibit a distinct full blood count profile and hematuria is found to be more suitable to predict infection. However, the need to implement comprehensive approaches beyond chemotherapy for schistosomiasis control in this area as recommended by WHO is desirable.