Prevalence, intensity, and correlates of intestinal schistosomiasis infection among children after 10 years of preventive chemotherapy in Western province of Rwanda

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Background

In Sub-Saharan Africa, Schistosomiasis remains a major health problem with significant social economic burden in high endemic zones. World health organization's preventive strategy and recommendations to use single dose praziquantel is a core intervention measure recommended to control Schistosomiasis morbidity by 2020 and its elimination by 2025 in most affected nations.

The aim of the study was to investigate the prevalence of schistosomiasis mansoni among school children in Rwanda.

Methods

This cross-sectional study included 4,998 school children between 5-15 years attending 8 schools in four selected districts along the lake in the western province of Rwanda. The school children were pre-screened and stool samples were collected and analyzed using kato-katz technique to identify the schistosomiasis positive participants and to determine the intensity of the infection. The selected schools was located closer to the Lake approximately less than 5 km.

Results

The prevalence of schistosomiasis among school children was 5.3% (n=265). Of these positive cases, 242 (91.3%) had light infection intensity, 21 (7.9%) had moderate infection intensity and 2 (0.8%) had heavy infection intensity of schistosomiasis. Multivariate logistic regression indicated that older age (p=0.02), living district (p <0.001) and schools (p< 0.001) as significant predictors of intestinal schistosomiasis infection. Higher age (10-15 years) was the only significant predictor for high infection intensity.

Conclusion

Prevalence of schistosomiasis in school children in selected hot sport in Rwanda is high. Efforts and interventions targeting the control and elimination of schistosomiasis including health education, water hygiene and sanitation are needed

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