

Schistosomiasis Outbreak, Kwrite village, Mangwe district, Zimbabwe

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Introduction

- Schistosomiasis is a neglected tropical disease
- Second most prevalent tropical disease after malaria.
- Among the top 10 causes of OPD cases at Empandeni RHC
- A new school health master received complaints of pupils passing bloody urine.
- Teacher accompanied 31 symptomatic pupils to Empandeni RHC on 20/06/12 for treatment

Study site

Objectives

Broad Objective

- To investigate Schistosomiasis outbreak at Kwrite Primary School, Mangwe District June 2012.

Specific Objectives

- To describe the schistosomiasis outbreak by person, place and time.
- To determine factors associated with contracting schistosomiasis.
- To identify the source of infection.
- To assess case management of schistosomiasis.
- To assess knowledge and practices among pupils on schistosomiasis prevention and treatment.
- To conduct an environmental assessment
- To evaluate the district outbreak preparedness and response

Methods

Study type

- Unmatched 1:2 case control study

Recruited 42 cases and 84 controls

Case; any person aged between 7 and 15 years attending Kwrite primary school, resident in Empandeni Ward for not less than 2 months, who had passed bloody urine with or without associated symptoms between 1 June 2012 to 7 July 2012.

Data collection

- questionnaires, checklists

Data Analysis:

- Epi Info 3.5.2 used to generate tables, graphs and frequencies

Results

- 60% of cases were females
- The median age for cases and controls was 10 years (Q₁=9, Q₃=12) and (Q₁=8, Q₃=11) respectively.
- *Schistosoma hematobium* was isolated in 31 out of 100 urine specimens examined.

Factors independently Associated with Contracting Schistosomiasis at Kwrite Village, June 2012

Factor	Adjusted OR (95% CI)	p-value
Swimming in dam	9.017 (2.29-35.53)	0.0017
Bathing in dam	3.221 (1.10-9.41)	0.0326

- Gardening, brick moulding, swimming & fishing were common activities at the dam
- *Bulinus globosus* snails were identified at Kwrite dam

Discussion

- Kwrite dam was contaminated with *Schistosoma hematobium* whose intermediate host *Bulinus* sp. was isolated in dam water.
- Human activities involving water contact (bathing & swimming) predisposed pupils to infection.
- Health education needs to be complemented by IEC materials

Conclusion

- The outbreak was driven by human contact with *Schistosoma hematobium* infested Kwrite dam water and poor knowledge.

Recommendations

- Train rural health centre staff on IDSR - DMO
- Conduct formal training of school health master on health issues – DMO & DEO
- Conduct biannual snail scooping at Kwrite dam - DEHO
- Conduct weekly health talks on assembly - School health master

Public Health Actions Taken

- Mollusciding done at Kwrite dam
- Three boreholes in Kwrite were repaired
- Health education IEC materials were prepared and distributed in the community
- School Health master oriented on Schistosomiasis



Limitations

- Date of onset of symptoms was difficult to establish and thus an epidemic curve could not be produced.

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