MASS CHEMOTHERAPY MAY NOT BE AN EFFECTIVE STRATEGY FOR SCHISTOSOMIASIS CONTROL IN THE PHILIPPINES

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SCHISTOSOMIASIS due to S. japonicum in the PHILIPPINES

- SCHISTOSOMIASIS REMAINS A PUBLIC HEALTH PROBLEM IN THE PHILIPPINES.

- S. JAPONICUM INFECTION IS ENDEMIC IN ALL PROVINCES IN MINDANAO (EXCEPT THE SULU ARCHIPELAGO AND MISAMIS ORIENTAL), LEYTE, SAMAR, ORIENTAL MINDORO AND SORSOGON.

20 MILLION PEOPLE ARE LIVING IN ENDEMIC PROVINCES WITH 1.9 MILLION DIRECTLY EXPOSE TO THE PARASITE.
GOAL OF THE NATIONAL SCHISTOSOMIASIS CONTROL PROGRAM of the PHILIPPINE’S DEPARTMENT OF HEALTH

Eliminate Schistosomiasis as a public health problem

(Prevalence of 1 percent or below).
CHEMOTHERAPY is the MAIN CONTROL MEASURE AGAINST SCHISTOSOMIASIS IN THE PHILIPPINES

Approaches used in the delivery of chemotherapy include the following:

- Case finding and treatment (1981-1995)
- Case finding and treatment and mass treatment (1996-2000).
PREVALENCE OF SCHISTOSOMIASIS IN THE PHILIPPINES 1985 - 2004
Comparison of Mass Treatment and Case Treatment Compliance in Nine Endemic Areas in the Phils.
Objective of the Study

To determine the difficulties associated with mass chemotherapy as the main approach in the control of schistosomiasis in the Philippines.
METHODS

Mass treatment area: 50 villages selected for determining the effect of irrigation on transmission of *S japonicum*.

- 50 villages – predominantly rain-fed
- 50 villages - with man made irrigation systems
Elevation Map of Samar with Location of Study Sites
PROCEDURES

1. Measurement of human infection
   - 3 fecal examination over 5 day period
   - Kato-Katz examination

2. Social preparation for mass treatment
   - prioritization of Kato-Katz positive individuals.
   - advocacy through health education in village assemblies and house-to-house campaigns
   - refinement of treatment procedures, e.g. multiple treatment points, close follow-up of side effects for treatment.
   - improved logistics.
Prevalence of Schistosomiasis Japonicum in Western Samar

Average Prevalence Rate of the Study Areas:

15.76%
(0.00% to 47.54%)
Participation Rate in Mass Treatment

Average Participation Rate: 43.44%
Mass Treatment Participation Rate vs. S. Japonicum Prevalence

- Prevalence of Infection
- Participation Rate in Mass treatment
Mass Treatment Participation Rate vs. S Japonicum Prevalence

Pearson correlation
-0.009
P-value 0.951

50 Villages
Reasons for Non-Participation in Mass Treatment Activities

1. Fear of side effects from the drug
   1.1. from previous experience
   1.2. stop them from doing their farm work while undergoing treatment.
   1.3. anxiety over children’s condition after treatment.

2. Perception that treatment is not needed based on negative stool examination results.

3. Not informed about mass treatment activities.
Prevalence of Infection in Macanip, Leyte

INTENSIVE CASE FINDING AND TREATMENT

Percent Prevalence


N=1241 from 1982-1989

> 1 y/o

N = 631

*8-30 y/o
CONCLUSION

- In the Philippines, mass treatment approach appeared not to be an effective strategy in the control of S. japonicum infection.

- Multifaceted critical factors affect the attainment of high coverage rates for mass treatment against schistosomiasis.

- Infection control must be developed on several fronts. This includes treatment and all the social science work to increase adherence with mass treatment and individual treatment of infected people.

- More research on ecological factors influencing transmission such as our ecology project.
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