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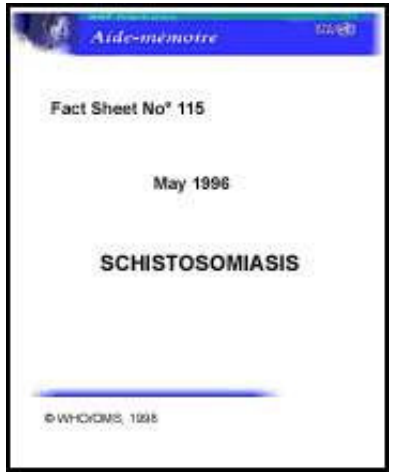

Fact sheet No 115: Schistosomiasis - May 1996 (WHO, 1996, 2 p.)

- *(introduction...)*
- Characteristics
- Diagnosis
- Treatment
- Control Strategy

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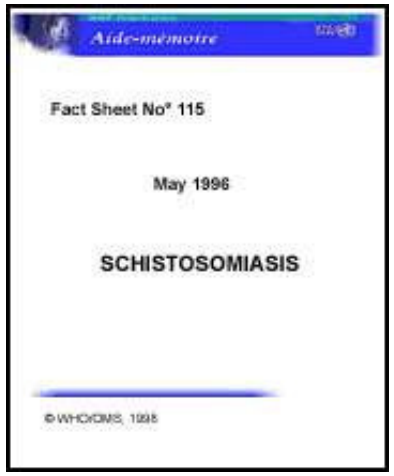

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May 1996

Among human parasitic diseases, schistosomiasis (sometimes called bilharziasis)

ranks second behind malaria in terms of socio-economic and public health importance in tropical and subtropical areas. The disease is endemic in 74 developing countries, infecting more than 200 million people in rural agricultural and peri-urban areas. Of these, 20 million suffer severe consequences from the disease and 120 million are symptomatic. In many areas, schistosomiasis infects a large proportion of under-14 children. An estimated 500-600 million people worldwide are at risk from the disease (map).

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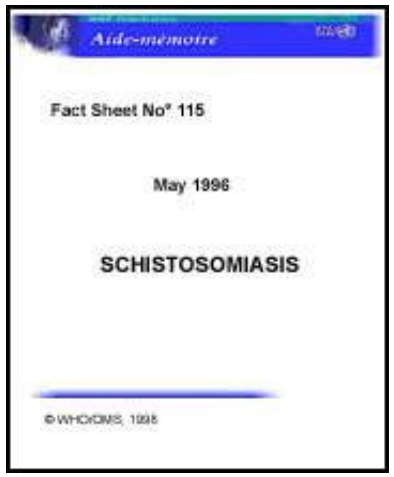

Characteristics

The major forms of human schistosomiasis are caused by five species of water-borne flatworm, or blood flukes, called schistosomes:

- **Intestinal schistosomiasis caused by *Schistosoma mansoni* occurs in 53**

countries in Africa, the Eastern Mediterranean, the Caribbean and South America.

- **Oriental or Asiatic intestinal schistosomiasis, caused by the *S. japonicum* group of parasites (including *S. mekongi* in the Mekong river basin), is endemic in seven countries in South-East Asia and in the Western Pacific region.**

- **Another form of intestinal schistosomiasis caused by *S. intercalatum* has been reported from 10 central African countries.**

- **Urinary schistosomiasis, caused by *S. haematobium*, is endemic in 54 countries in Africa and the Eastern Mediterranean.**

Schistosomes enter the body through contact with infested surface water, mainly among people engaged in agriculture and fishing. But rural-urban migration is introducing the disease into peri-urban areas in northeast Brazil and Africa, and refugee movements are spreading it in Somalia and Cambodia. More tourists are contracting schistosomiasis with the rise in "off-track" tourism, at times with severe acute infection and unusual sequelae including paralysis of the legs.

The WHO International Agency for Research on Cancer has confirmed that in countries where urinary schistosomiasis is endemic, it causes a specific type of bladder cancer. In some areas of Africa the incidence of bladder cancer linked with schistosomiasis is 32 times higher than that of simple bladder cancer in the USA.

The economic and health effects of schistosomiasis should not be underestimated. School performance and growth patterns of infected children are retarded,

although the effects are 90% reversible on average with treatment. In Egypt, Sudan and northeast Brazil, the work capacity of rural inhabitants is severely reduced due to weakness and lethargy caused by the disease.

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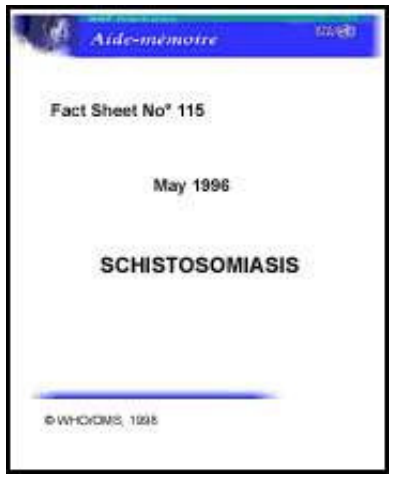

Diagnosis

For diagnosing urinary schistosomiasis, a simple sedimentation can be used efficiently. A syringe filtration technique using filter paper, or polycarbonate or nylon filters, allows a 5-person team to examine up to 200 children in 90 minutes. The eggs of intestinal schistosomiasis can be detected in faecal specimens by sedimentation or a technique using cellophane soaked in glycerine, or between glass slides. Children with *S. haematobium* nearly always have microscopic or visual blood in their urine (haematuria). Children needing treatment can be also be

identified by looking at urine specimens or checking for microscopic blood with chemical reagent strips. The cost of tests needing a microscope is US 1 cent or less, and with chemical reagent strips about US 5 cents.

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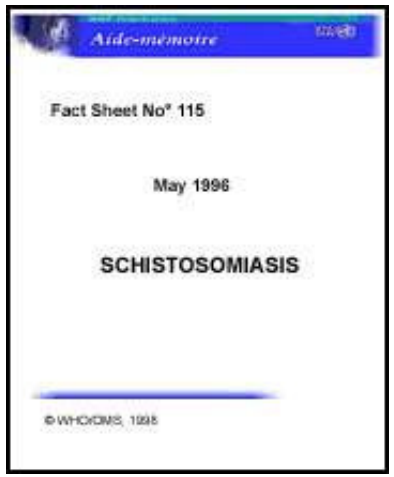

Treatment

Three safe, effective drugs -- praziquantel, oxamniquine and metrifonate -- are now available for schistosomiasis and are included in the WHO Model List of Essential Drugs.

Praziquantel is effective against all forms of schistosomiasis with few, and only transient, side effects. Cost has decreased to under US 25 cents for adults and even less for children. Oxamniquine is used exclusively in Africa and South America to treat intestinal schistosomiasis. Metrifonate has proved to be safe and

effective for the treatment of urinary schistosomiasis. Even though re-infection may occur after treatment, the risk of developing severely diseased organs is diminished and even reversed in young children. In most areas, a reduction in the overall number of cases is maintained for 18-24 months and in other areas for up to five years without further intervention.

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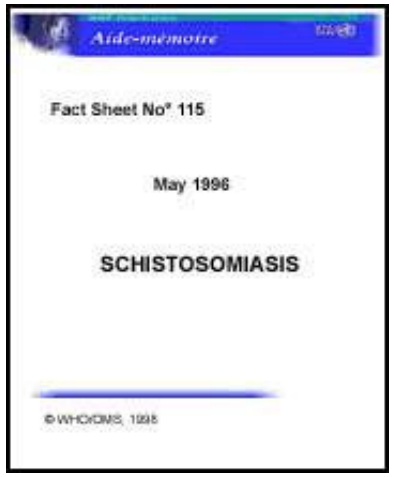

Control Strategy

Except in Japan, Lebanon, Montserrat and Tunisia, where the disease has disappeared altogether, WHO's control strategy is to reduce the amount of disease caused by schistosomiasis rather than to halt transmission entirely. According to the findings of a WHO Expert Committee published in 1993:

- **Controlling morbidity with drug treatment is a feasible and effective**

strategy. Other major interventions are health education and provision of safe water.

- **Schistosomiasis control is optimal when it is part of the general health care system and when the primary health care system performs specific control tasks.**

- **Approaches differ for controlling the various forms of schistosomiasis and must be adapted according to the epidemiology, resources and culture of each country.**

- **Schistosomiasis control is a long-term commitment. While short-term objectives to reduce prevalence can be achieved (up to 75% within two years in many endemic areas), surveillance and maintenance must continue for 10-20 years.**

For further information, please contact Health Communications and Public Relations, WHO Geneva, Tel (4122) 791 3221 or fax 791 4858; or Dr Lorenzo Savioli, Division of Control of Tropical Diseases/Schistosomiasis and Intestinal Parasites Unit, Tel (4122) 791 2664 or Fax 791 4869. All WHO press releases, fact sheets and features are available on the Internet on the WHO Home Page http: //www.who.ch/