NEWS

SCHISTOSOMIASIS: PEOPLE COME FIRST

An Expert Committee of the World Health Organization (WHO) today endorsed a new strategy, focused on people and their behaviour, to check the alarming spread of schistosomiasis, a "disease of development".

Meeting in Geneva, (8–13 November 1984) the WHO Expert Committee on the Control of Schistosomiasis warned that schistosomiasis – a water-borne disease caused by a parasitic flatworm or blood fluke called a schistosome – is spreading and intensifying due to the new water projects needed to meet growing food demands in developing countries.

It has become the second most important tropical disease in terms of its socio-economic impact and of the toll it takes on health, ranking immediately behind malaria.

Many new irrigation projects and water resource development schemes are a health risk. Unless properly planned from the outset, they multiply the possibilities of human contact with contaminated water. They also provide good breeding-places for the water-snail, the intermediate host of the disease.

One person in twenty infected

According to WHO, schistosomiasis now affects one in 20 of the world's population, or 200 million people in 74 developing countries. About 500–600 million other people are made vulnerable to the disease by poverty, poor housing and lack of sanitary facilities.

The new WHO strategy will revolutionize the control of schistosomiasis in the developing world. Made possible by safe, effective modern drugs and low-cost diagnostic techniques easily used in rural areas, the "people-oriented" approach has produced dramatic results in national programmes, notably in Brazil, Egypt and Sudan.

The main objective is to reduce the disease caused by the heavier infections (rather than halting transmission entirely), and thereafter to maintain infection at a low level where it is not a public health problem.

The strategy backed by the WHO Expert Committee is based on:–

* health education;
* widespread diagnosis and treatment;
* access to safe water and latrines;
* environmental management and modification;
* snail control; and
* intersectoral cooperation in agricultural and water resource development schemes.

The Committee also made proposals for integrating schistosomiasis control into primary health care programmes, but stressed that this can only be successful where schistosomiasis is given national priority.

A way of life

Largely unknown in northern, temperate areas, schistosomiasis is virtually a way of life for the millions who live in a tropical climate. The key to the new strategy is a focus on health behaviour. People – not snails – cause schistosomiasis. They catch the disease through daily contact with contaminated water. The same water is used for agricultural, domestic and recreational purposes – and as a disposal area for human waste. Health education seeks to reduce water contact and to prevent water contamination.

Children, the major target group for health education, usually have the heaviest infections – in a hot climate, swimming is naturally their favourite pastime. In some areas, 80–100 per cent of school-age children have the disease. Women and girls catch schistosomiasis while collecting water, bathing infants, or washing clothes or dishes at the water's edge. Men are more likely to get infected when fishing or farming.

The symptoms of schistosomiasis include rash, coughing and chest pains, cramps, diarrhoea, fever, blood in the urine, and an enlargement of the spleen and liver. With reinfections over a period of years, it can become a very debilitating and sometimes fatal disease. A specific form of bladder cancer occurring in endemic areas is also linked with long-term schistosomiasis infection.

Detection and treatment

Recent breakthroughs in understanding of the disease, and in detection and treatment, have made it feasible as never before to control schistosomiasis in the remote rural areas where it is most prevalent. One obvious sign that should alert schoolteachers or primary health care workers is blood in the urine. Using microscopes and slides, health workers with a

minimum of training can count the number of parasite eggs in stool and urine samples, and so determine the severity of the infection.

Today there are three safe and highly effective drugs for schistosomiasis. Praziquantel, the result of a unique form of collaboration between WHO and the manufacturer, is effective against all forms of schistosomiasis. Oxamniquine is used for the intestinal form in Africa and South America. Metrifonate, originally developed as an insecticide, is a safe drug used for urinary schistosomiasis. All three can be taken by mouth, often in a single dose, which simplifies treatment.

The effects are dramatic after one treatment with these modern drugs. They reduce the infection immediately; people feel better within a few days. Their general health improves, particularly in the case of children. Surveys of schoolchildren in the Egyptian Delta showed a spectacular drop in infection after treatment, from 90 to 13 per cent.

A healthier environment

For several decades schistosomiasis control focused heavily on mass campaigns to eliminate snails through chemical spraying. Yet although snails are part of the disease cycle, spraying has several disadvantages, including its high cost. However, snail control by chemical or environmental methods still has its place in control programmes, although more permanent results are expected from health education in future.

Agricultural and other water resource development schemes are essential to the economies of the endemic countries. Effective schistosomiasis control calls for national intersectoral bodies to coordinate all development activities which may promote or influence the spread of the disease. The WHO Expert Committee commended effective national examples of such collaboration in Ethiopia, Kenya and the Philippines.

Schistosomiasis has plagued humanity since ancient times – visible traces of it in China date back 2,000 years, and in Egypt more than 3,000 years. Theodor Bilharz identified the parasitic worm in Egypt in 1851, giving his name to the older scientific name for the disease, bilharziasis. With the new possibilities open today, WHO believes that prospects for success in schistosomiasis control are now better than they have ever been before. (Press Release WHO/18 dated 13 November 1984; World Health Organization, Media Service, 1211 Geneva 27, Switzerland)

ON THE ART OF MUSICAL IMPROVISATION

. . . "The artistry of master musicians—those performers and composers whose music-making is of the highest and most rarefied level—is always a source of wonder, appreciation, and study. Regardless of idiom (be it classical, jazz, etc.), their heightened awareness and insight often imbues the music with unexpected depth, clearer focus, or deeper meaning. . . . Creative artists (improvising performers as well as composers) have different options and possibilities. Through the art of improvisation (a technique not restricted to jazz), the performer can form musical material to reflect a truly spontaneous expression. From this, a special, directly communicative link between the artist and listener can take place. Although the listening experience is quite different from the appreciation of carefully crafted, composed music, the spontaneity of improvisation lends itself to a freshness and vitality that can be most invigorating and satisfying." [(Paul Cohen in *Saxophone Symposium* 8(4):16-22, Fall 83) (North American Saxophone Alliance) (Reproduced with permission from Press Digest, *Current Contents*®, No. 50, December 10, 1984, p. 21. Published by the Institute for Scientific Information®, Philadelphia, PA, USA.)]

Edited and Published by Prof. M. R. A. Rao, Current Science Association, Bangalore 560080
Phototypeset by Macmillan India Ltd., Bangalore 560025 and
Printed at Macmillan India Press, Madras 600041.