

New medicine offers hope

Medicine seems lately to have run into a stone wall of intractable diseases. In decades past, wonder drugs appeared that cured or prevented such scourges as bacterial infections and polio. Today's degenerative disorders, heart disease and cancer for example, remain unconquered in spite of the billions of dollars spent on discovering their cause.

Doctors, no longer the workers of wonders, have accordingly fallen in the public's esteem. But now researchers at Germany's Bayer Drug Company have scored a triumphant medical breakthrough that offers the hope of salvation to tens of millions of suffering people — and one that reminds us that medicine is about more than just money.

Most North Americans have never heard of a disease with the daunting name of schistosomiasis, yet in tropical climates it infects an estimated one billion people. After malaria, the world's leading killer disease, schistosomiasis is the second most deadly malady.

This terrible parasite is carried by tiny freshwater snails that infest irrigation canals and rice paddies in the Third World. The parasites then leave the snails and easily enter a human body through its pores. The snails next travel through the bloodstream, mate, and produce millions of eggs. The eggs, in turn, are either excreted in human feces or lodge in vast numbers in the intestinal wall or the bladder.

Schistosomiasis is itself rarely fatal; like AIDS, it so weakens and debilitates the victim that he falls prey to other diseases or becomes wasted to the point of collapse. The disease particularly affects children who both play and work in muddy water. Wise travellers to hot, humid climates avoid all stagnant water, and for good reason. Some years ago, a very famous Italian movie actress, while shooting on location in the Philippines, put a foot

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for no more than a few moments into a pool of water and came down with schistosomiasis.

Nations between 10 and 30 degrees latitude are most affected: South China and all of Southeast and Southwest Asia, Central Africa and large parts of Central and Latin America. One of the worst areas of affliction is in Egypt and the Sudan where 60% of the rural population suffers from schistosomiasis. Known as "bilharzia" in Egypt, the snails lurk in the irrigation ditches along the Nile and infect farmers who spend their entire day in the water. Since the Nile also serves as a sewer, feces of infected people, filled with snail eggs, carry the disease downriver, continuing the deadly cycle of infestation.

The effects of bilharzia in Egypt have been catastrophic. Life expectancy exceeds no more than 38-40 years for farmers. Infected victims grow progressively weaker and listless, unable to do heavy manual labor, their immune systems weakened so that other maladies find them easy prey. Egyptians used to be called "lazy" by Europeans; in truth, most were slowly dying.

Similar though less concentrated patterns of infestation may be seen in parts of China, Indochina and northeast Brazil. In all of these regions, massive programs have failed to eradicate the deadly snails so that the only recourse appears to be drug therapy.

Until the recent breakthrough, anti-schistosomiasis drugs were too expensive for most Third World nations. The development of "praziquantel" now means that people can be protected for three years for about \$2 each, 60% below the cost of other drugs. But for China, which may require up to 300 million doses for the first three-year program, the cost will still be enormous.

Western nations should focus some of their aid programs on helping counter schistosomiasis. Populations of Third World nations that are massively infected with the debilitating snails cannot ever hope to function as either members of a modern society or productive farmers until they are protected against the disease.

The need is also becoming more critical each year as new irrigation projects are bringing more land under cultivation throughout the Third World. Each new irrigation ditch means millions more snails waiting for victims.

In my experience, the most effective way for us to help is by adopting a group of villages, say in Egypt or Indonesia, and providing all of their people with praziquantel and education on how to combat schistosomiasis by better hygiene. As the program expands, entire disease-free zones are created and maintained. Whole regions can thus be returned to life and one of mankind's great causes of suffering alleviated.

Punch



"It's my eyes this time, doctor—I opened it up, and every page was a blur."