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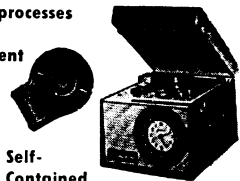
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MEDICINE

Hope for Schistosomiasis

► ONE OF THE WORLD'S oldest scourges, schistosomiasis or blood fluke disease, may be countered in the future with a new immunization technique that uses harmless flukes to induce resistance to the dangerous ones.

This means that there is new hope for millions of people in South America and the Far East, where at least one of the three major blood flukes has been a menace for centuries. In Africa, plagued by two of the blood flukes, the significance of the new find is even greater.

The technique is now being refined in the rhesus monkey, as much like man as man himself so far as blood fluke infection is concerned. It is being developed by two Chinese scientists, Drs. S. Y. Li Hsu and H. F. Hsu, a husband and wife team working at the State University of Iowa. They report their work in *Science*, 133:766, 1961.

Both the rhesus and man are susceptible only to human blood fluke strains. Although the researchers are now concentrating on strains of one particular species, the Japanese blood fluke, technically known as *Schistosoma japonicum*, they believe the new technique will be just as effective with other blood flukes.

Normally an immature fluke enters the body by penetrating the skin, which causes a rash of bumps that look like flea bites. Once inside the body, the fluke begins to

dig its way through the tissues and finally reaches the blood stream. There it mates and lays its eggs. The eggs reach the intestine or the bladder, pass out of the body, work their way into a certain kind of snail, grow a bit and leave the snail to look for another human. The bodily migrations of the worms and the eggs they lay cause serious damage to the liver, and, in some cases, the nervous system.

Certain "non-human" strains of the fluke, however, cannot survive long enough, in the human or monkey, to do any serious damage, but they do survive long enough to do some good. This is the basis of the new immunization technique.

When the young fluke of the non-human strains are injected into a subject, antibodies are built up to the human strain as well. So far the subjects have been rhesus monkeys and their acquired resistance to the human strains has not stopped the flukes completely. But results are so promising that the researchers hope to render complete immunity by adjusting timing, dosage and number of inoculations.

Conquest of these parasites would be a welcome medical accomplishment. The blood fluke scourge is so old that evidence of it has been found even in Egyptian mummies.

• Science News Letter, 79:254 April 22, 1961

MEDICINE

Oral Polio Vaccine Given

► HARRISBURG and surrounding communities in Dauphin and Cumberland counties, Pa., will have no polio cases this summer if an oral polio vaccination program begun April 6 is as effective as predicted.

All persons, including those previously inoculated with Salk vaccine, in a population area of 240,000 have been asked by local doctors to participate in the program. The Dauphin County Medical Society, made up of 322 physicians, will staff 16 immunization points located throughout Greater Harrisburg, covering both counties.

Three doses of the vaccine will be given in Harrisburg at five- to six-week intervals. The first dose is with the Type I strain, which protects against the virus responsible for 80% of paralytic polio cases. Vaccines from Type II and Type III strains are tentatively scheduled to be given May 11 and June 15.

Two drops of the vaccine will be swallowed. Babies under the age of one year will receive their dose from a dropper. Children will be spoon-fed a sugared vaccine mixture and adults will be given paper cups containing the two drops of vaccine mixed with a half-ounce of distilled water. The adult dose is tasteless.

Chas. Pfizer & Co., Inc., is supplying the

vaccine without charge. The company is farthest ahead on production of the Sabin oral vaccine because of work done in its British plant.

The U.S. Public Health Service has approved regulations for licensing oral, live poliovirus vaccine, but so far no pharmaceutical company has been licensed to sell the product.

• Science News, Letter, 79:254 April 22, 1961

Questions

MEDICINE—What substance was injected into leukemia patients? p. 247.

ROCKETS AND MISSILES—How long did it take the Russian astronaut to circle the earth? p. 243.

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