MEDICINE

Vitamin C Not A Preventive Or Cure of Rheumatic Fever

Tests on Over One Hundred Persons Demonstrate That Ascorbic Acid Prevents Scurvy But Not Rheumatic Ill

DESPITE recent animal experiments suggesting that lack of vitamin C in the diet might cause rheumatic fever, the vitamin is neither a cure nor a preventive of the disease and apparently has nothing to do with its cause.

First tests of the recent theory on human patients, with the above conclusions, were reported by Drs. Mark P. Schultz, Jules Sendroy and Homer F. Swift of the Rockefeller Institute for Medical Research at the meeting of the American Society for Clinical Investigation.

Their studies were made on over one hundred persons. Fifteen were patients acutely ill with rheumatic fever. These were given large daily doses of the vitamin in the form of ascorbic acid by mouth and by injection into the veins and in addition large doses of orange juice. They were also given substances rich in other vitamins. No beneficial effect of this treatment was seen.

Two groups of children, about thirty in each, were examined carefully for several months beginning in mid-winter. Children in one of the groups were given large daily doses of vitamin C in the form of ascorbic acid. Although the children not receiving the vitamin developed a mild degree of scurvy in early spring, there was no difference between the groups as far as the rheumatic disease was concerned. In fact, relapses of acute rheumatic fever occurred in three children who had received the ascorbic acid daily for two to three months.

Careful tests of the use and storage of vitamin C in thirty patients and non-rheumatic persons showed in the rheumatic patients no abnormality in the way the vitamin was handled by the body nor any deficiency in the body's store of this vitamin.

The theory that lack of vitamin C and consequent development of scurvy was a factor in causing rheumatic disease was based on experiments reported by Drs. James F. Rinehart and S. R. Mettier of San Francisco two years ago. These scientists produced symptoms resembling human rheumatic disease in guinea pigs deprived of vitamin C until a mild degree of scurvy appeared. The animal experiments were repeated by the Rockefeller scientists with the same results, but their studies on human patients, reported recently, lead them to conclude that lack of the vitamin is not important in causing the disease.

Science News Letter, May 18, 1935

MEDICINE

Potency of Liver Depends Upon Three Substances

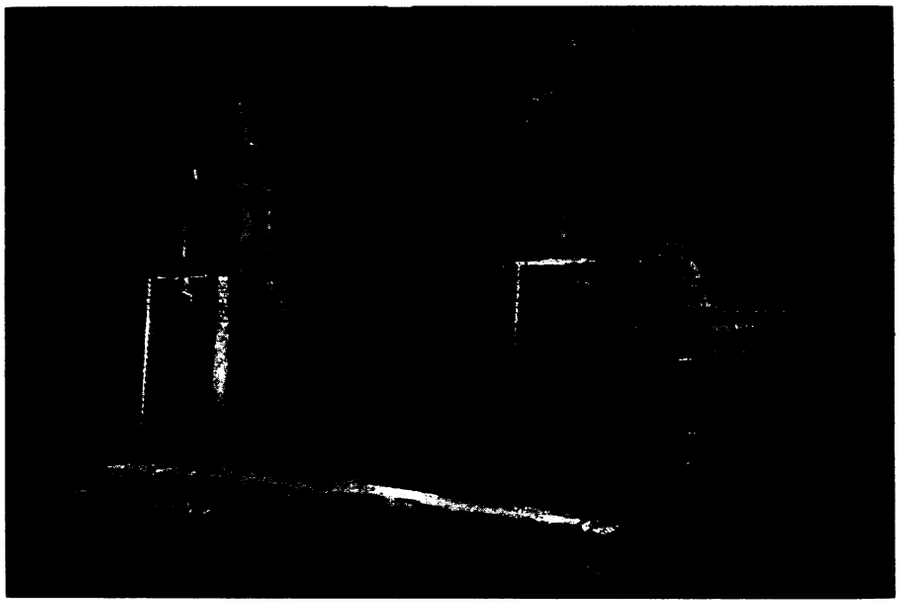
THE ABILITY of liver to keep pernicious anemia patients alive and well, so long as they keep on eating it or taking liver extract, does not depend on any single chemical substance contained in liver.

Experiments showing that the effectiveness of liver depends on a mixture of three active substances, two of which have been obtained in pure crystalline form, were presented by Drs. Cyrus H. Fiske, Y. Subbarow and Bernard M. Jacobson of Harvard Medical School at the meeting in Atlantic City, N. J., of the American Society for Clinical Investigation.

Almost ever since the discovery of the liver treatment for pernicious anemia, scientists have been trying to find the chemical substance in liver responsible for its effect on the disease. Although potent liver extracts are now available for pernicious anemia patients, if the active substance in liver could be identified, it might be made in the laboratory much as many other medicines are made, instead of having to be extracted, at considerable expense, from liver itself.

Three substances obtained from liver by chemical treatment and known to scientists as "fractions" have been found to have an effect on the blood-cell-forming organs of both patients and guinea pigs. But in the course of chemical purification of the "fractions," they lost their anemia-relieving potency. Two of these "fractions" have been obtained in crystalline form and the chemical composition of one of them determined. Separately these "fractions" have no effect on pernicious anemia patients, the Harvard scientists reported, but a mixture of all three of them is highly effective as a remedy for the disease.

Science News Letter, May 18, 1935



LOST IN THE JUNGLE

This model shows the public a beautiful Mayan temple which one lucky scientific expedition "ran into" and which the two explorers fortunately photographed and studied then and there. No expedition has ever again found these ruins guarded by tangled vines and bush. The model is the work of Shoichi Ichikawa of the American Museum of Natural History, under supervision of Dr. George C. Vaillant and Clarence L. Hay.