MEDICINE

Prize Method Used Here

One of the first places in the United States to start the treatment of paralysis by inoculation with malaria, the method for which Prof. Julius Wagner-Jauregg of Vienna has received the 1927 Nobel prize in medicine, was St. Elizabeth's Hospital for the Insane of the District of Columbia.

"Shortly after I first heard of the malarial method through the Vienna medical press," Dr. William A. White, director of St. Elizabeth's, declared recently, "my old personal friend, Dr. Weigandt of Hamburg, came to New York to attend a psychiatric meeting several years ago. The results he was getting at his institution in Germany made it seem to me worth trying. It must be remembered that the victims of the paralytic form of syphilis practically always die. Anything that gives a ray of hope is worth trying. Consequently, five years ago this month we inoculated our first group of paralytics with malaria. I believe that we were the first institution in the country to do this.

"The underlying theory of this use of one disease to kill off another," explained Dr. White, "is that the spirochaete, the causative organism of syphilis and its paralytic form, paresis, is injured by high temperatures. Malaria induces a temperature that is recurrent. A spirochaete survives a temperature of 103 degrees Fahrenheit very uncomfortably. Another run of 'chills and fever' and the organism is still further weakened. Eventually it succumbs.

"We use a benign tertian malaria, a mild form with fever every third day. It can be kept under control by quinine but we of course make a careful study of each individual patient and his particular reaction to the two diseases to determine whether the treatment should be continued or not. Of the group of 103 paralytic patients that we inoculated first, 66 were found to be definitely improved at the end of three years while only 12 were dead. In a similar group of the same number, not treated with malaria and kept under observation for the same period as controls, 79 were dead at the end of three years and only 12 were improved. I may say in passing that I recently ran into one of my first cases operating an elevator in a large downtown hotel. He was well and happy and doing beautifully in a

self-supporting job. In all, I think, we have treated about 350 cases and have a waiting list because it is so difficult these days to find a malaria patient from which to obtain a sample of the necessary malarial blood for inoculation."

Important physiological evidence that the malarial treatment has a definite curative effect on paresis has been furnished by autopsies performed on five former patients at St. Elizabeth's who died from other causes, Dr. White and his assistants declared. Cells that show a decided derangement in the brain of the paretic victim, were found in these men to have undergone a distinct return to the normal condition of a healthy brain.

It was as far back as 1887 that Prof. Wagner-Jauregg published his first paper explaining his fundamental idea that febrile disease had an ameliorating effect on paralysis. Even then the idea was not new, for observers as long ago as the time of Hippocrates and Galen had noted that intermittent fevers produced favorable effects on the paralytic insane. But the Viennese psychiatrist took the clinical observations of his predecessors and contemporaries, added his own and built up a theory that he believed in. For years he struggled to collect data to prove his theory. He tried to induce curative effects on hopeless paralytics by inoculations with typhoid, tuberculin, erysipelas and intermittent fevers.

Different workers with mental disease observed that in the tropics where malaria was frequent and syphilis extraordinarily common among the native population, paresis, the deadly form of paralysis that often occurs in the last stages of syphilis, was unknown. This state of affairs was specially well demonstrated in both Java and in China. Furthermore malaria presented the special advantages, for clinical use, of being recurrent-it could come back at the spirochaetes in the body enfeebled by the first malarial attack and subject them to uncomfortably high temperatures again and again. It could be administered in a relatively mild form and cured up with quinine. Accordingly in 1917, Prof. Wagner-Jauregg made his first trial of malaria with nine paralytic patients. The results were encouraging. He continued the treatment. Other institutions followed, for it must be remembered that up to this time there was no real alternative

for paralysis but death. Today the application of the method is practically world-wide in the more advanced institutions where the paralytic insane are housed.

Though his grave and rather grim features have earned him the typical student-applied nickname of the "wooden statue," Prof. Wagner-Jauregg's lectures are enormously popular. An occasional twinkle belies his dour expression while one of his former students declares that he is not above an unprofessorial joke. Those who have worked with him in Vienna describe him as a marvelous physician and skilled clinician with an infinite capacity for painstaking research.

Further developments of the malarial treatment in which he is particularly interested at the present time are the preventive use of malaria in syphilitic patients before they develop paresis and a project for the finding of some method whereby malarial blood can be shipped from laboratory to laboratory. This feature is of special importance on account of the hit and miss chance of institutions finding a suitable malaria case just when they need it for inoculation of their paralytics. With all the health propaganda against the mosquito, good useful malaria cases of the right type are getting hard to find in the more enlightened coun-

Science News-Letter, December 17, 1927

MEDICINE

T. B. Claims Married Victims

If a man or woman, who is united to a matrimonial partner with open tuberculosis, is below par physically, his or her chances of acquiring the same dreaded infection are about one in six.

This is the conclusion Dr. Arnold Minnig of Denver has drawn from analysis of data from over 5000 tuberculosis cases he has observed at the Denver Municipal Tuberculosis Dispensary. Out of a total of 5067, 1888 cases were married or widowed. Of these, 319 or 16.8 per cent, Dr. Minnig has reported to the American Medical Association, were cases in which both consorts had active tuberculosis or one or the other died of the disease.

Hygienic living and intelligent prophylaxis are the weapons to be used to prevent tuberculosis spreading in families, he stated, just as they are everywhere else that the great white plague is found.

Science News-Letter, December 17, 1927