

The Nobel Prize in Physiology or Medicine 1927

Presentation Speech

Presentation Speech by Professor W. Wernstedt, Dean of the <u>Royal Caroline</u> <u>Institute</u>, on December 10, 1927

Your Majesty, Your Royal Highnesses, Ladies and Gentlemen.

<u>Fibiger</u> won his laurels in the field of theoretical medicine, researching into the cause of a specific disease. Turning to the work that led Wagner-Jauregg to the list of Nobel Prize winners, we enter the field of practical medicine, or more exactly, the wide field where the means of healing diseases are sought. The disease in the treatment of which Wagner-Jauregg acquired such great merit is general paralysis, a mental disease which, on a syphilitic background, leads to a fatal idiocy and paralysis. It is therefore a very serious and moreover not uncommon disease.

Up to the arrival of Wagner-Jauregg, we were practically without any means of healing general paralysis, or even of influencing its course and outcome substantially and with any certainty. The inaccessibility of the paralysis to treatment, and its development leading as a rule directly to death within a few years even came to be regarded as a criterion whether the diagnosis of paralysis had been correct in cases where at first doubt had prevailed in this respect. It should be clear that whoever is successful in finding a means to eliminate such a disease, has thereby made an achievement of the greatest benefit to mankind. Wagner-Jauregg has performed such a deed and it is for this that he is to be rewarded today with the Nobel Prize for Medicine for the year 1927.

How then did Wagner-Jauregg proceed to heal the unfortunate victims of this terrible disease? There is a saying «one must expel evil with evil» that might aptly have been coined as a motto for his treatment of paralysis. He healed the mental patients by infecting them with another disease-malaria.

For a long time, ever since Hippocrates, it has been observed that every now and then, mental patients were healed or favourably influenced, when they were attacked by a fever. It was this ancient observation, which Wagner-Jauregg also made himself, that excited the idea in him, whether one could not obtain an effective method of treatment for chronic mental patients by infecting them with a febrile disease. Even forty years ago, as a young lecturer at the <u>University of Vienna</u>, Wagner-Jauregg put forward his ideas in the professional press. At that time his proposals seemed to have attracted no attention, and he himself was for a long time prevented from putting them into practice. In 1917 the opportunity was first presented to him of realizing his ideas, in that in this year he injected nine persons suffering from paralysis with the infectious blood of malaria patients.

Wagner-Jauregg had not been deluding himself in his expectations. The infected patients developed malaria, their mental illness was favourably affected, and in three of the nine recovery was practically complete. The choice of the infecting disease which he had hit upon was also fortunate. The form of malaria (tertian fever) which he used is, if correctly treated, a relatively innocuous disease, which can always be cured by means of quinine treatment. It therefore requires no further motivation that under such conditions the method must be eminently well adapted, and that its practical application would be desirable in the highest degree.

The successful experiments of Wagner-Jauregg have been repeated throughout the whole world. Several thousand unfortunate people in various clinics and asylums in Europe and elsewhere - as well as in our own country - have received the benefits of this treatment during the last few years. Reports vary somewhat, but on one point they are unanimous, namely that never before have such remarkable results in the treatment of general paralysis been obtained. On the one hand, before Wagner-Jauregg it was possible to observe that about 1% of patients showed a «full remission» - that is to say, they recovered for a shorter or longer time, whether on account of treatment applied or by spontaneous remission, may be left an open question. With Wagner-Jauregg's malaria treatment on the other hand, it became apparent that on the average a complete cure from a practical point of view, and the ability to work, were obtained in no less than 30% of cases, and the best statistics even speak of nearly 50%. Approximately a third of all paralytics, formerly virtually condemned without exception for the rest of their lives to fall a burden on their relatives or society as useless beings, can, thanks to and as a consequence of the malaria treatment, count on being restored to a full life, fulfilling like others their duties in society.

For how long? On this it is impossible to speak with complete certainty, but the statistics are promising. It will suffice here to mention one set. I choose Wagner-Jauregg's own most recent compilation, as the cases observed for the longest time are found there. Wagner-Jauregg who in the course of years has treated over a thousand cases with malaria, took into consideration in these statistics only those cases, 400 in all, where at least two years had elapsed since the treatment. In spite of the length of time for which they were observed, varying between two and ten years, Wagner-Jauregg finds that about 30% - among them all three patients who had already recovered in 1917 (that is, ten years ago) - have enjoyed constant good health. This is quite remarkable, because previously, as stated, among the 1% of complete remissions observed, this lasted, as a rule, only a few months.

It is now quite clear from this that Wagner-Jauregg has given us a means to a really effective treatment of a terrible disease which was hitherto regarded as resistant to all forms of treatment, and incurable.

If it be considered that paralysis is, moreover, a disease which in general attacks persons between 32 and 45 years of age, and as a rule men - men, that is, in the best years of their lives and at an age when they are usually family providers and, as a rule, fathers of minors - it will be understood what a catastrophe for the whole family an attack by such a disease generally means. At the present time the great value of Wagner-Jauregg's achievement surely stands painted before our mind's eye in clearer colours than dry numbers can paint it. It is to such a one, who must be counted as one of the great discoverers and benefactors of mankind, that Alfred Nobel wished his prize to be awarded.

Julius Wagner-Jauregg, my most honoured colleague. As a young doctor the idea was born in your mind that by injecting the chronically insane with a febrile infectious disease it might be possible to cure the sick mind. After a long period of waiting came the moment when you were able to realize this idea. You injected malaria into human beings who were suffering from one of the most terrible mental diseases, one which up till now was thought to be incurable, and you led many, who were otherwise irretrievably lost, back to life and fit for work. Certainly, for you, the best reward for your life's work is the knowledge that you have given an unusually blessed gift to mankind, and the sense of the gratitude of the wretches whom you have made happy, as also of their families.

Recognition by the profession, the scientific world, is certainly, however, not a thing to be despised. The Caroline Institute has extended to you, in acknowledgment of your achievement just mentioned, the highest distinction that it has at its disposal, in that it has awarded you the Nobel Prize. I have the great honour to invite you to step before the King, and, accompanied by the heartfelt good wishes of the Institute and the gratitude and admiration of thousands, to receive your prize from the hands of His Majesty.

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