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NEW OBSERVATIONS IN RECENT SYPHILITIC THERAPEUTICS

THEIR APPLICATION IN PORTO RICO

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Accepting the affirmation that the syphilitic virus lodges tenaciously in the tissues and that the drugs used as specific treatment for the disease reach the tissues with great difficulty, and at the same time tend to destroy them, it has been thought necessary to adopt the use of such irritants which would cause the parasites to disperse and in this way put them within reach of the drugs used in order to obtain a specific effect.

In Vienna, syphilologists observed that patients with syphilitic eruptions who at the same time had rather high temperature elevations showed marked improvement after the fever had abated. This phenomena lead the observers to think that if such fevers could be induced in all syphilitic patients they might benefit. And in fact, the procedure did prove to be very gratifying.

It is worthy of note that in tropical climates where fevers due to various causes are common there is seen comparatively little neurosyphilis. This may also account for the small number of such cases in Porto Rico.

In the City of the blue Danube, where Medicine and Surgery as well as Art have astonished the world with their marvellous progress, the eminent physician Wagner Jaureggs, having in mind the observations made in former times to which we have referred above, presented at the International Congress of Syphilology and Neurology held some years ago, several patients suffering from paresis and tabes who had improved greatly after having been given the specific *salvarsán* treatment, in addition to having had fevers produced by tuberculine or anti-typhoid vaccines. Such good results were obtained that Dr. Jaureggs continued his tests using the same procedure. Later he experimented with milk injections which also caused fevers and which proved still more beneficial for the object in view. The only reason that he could offer for this beneficial aspect was that the temperature

produced was higher than the virus could stand, and also that there was an increased leucocytosis.

Dr. Jaureggs continued his experiments until 1919 when he began investigations along other lines.

In looking about for a means to induce fever, and at the same time to be able to control it, it was considered that the tertian, benign form of malaria would be ideal, as the temperature could be terminated at will, by the use of quinine. In order to follow up this procedure he utilized a patient who was suffering from tertian malaria. From one malaria patient brought from the city of Hamburg he transmitted malaria to nineteen patients who were suffering from paresis. He used two ways of transmission from the malaria patient to the paretic, viz: the subcutaneous and the intravenous. In employing the last method, 1½ to 2 cc. of blood was taken from the malaria patient and immediately passed by the intravenous method to the paretic patient who was already prepared. The only complication in a case of this kind might be hemolysis but according to the writer's observations after having seen 175 patients who had been given this treatment, none were found to suffer from hemolysis, nor was there any such symptom apparent in the 1,800 cases experimented upon by Dr. Wagner.

Patients may present a mild fever immediately after the treatment is applied or on the same day but it soon disappears. From the third to the seventh day the typical malarial fever developes with chills and heavy sweats following the rise in temperature which may occur every day or every two days. According to Austrian investigators, the patient should have a temperature of more than 38°C. (100. 5 F), and this should occur at least eight or ten times, on different days in order to be beneficial. When it is considered best to terminate the malarial temperature then quinine is employed. A week later a course of *solvarsán* is begun after which the patient is allowed to rest and all the clinical observations are made, including the spinal fluid. Fifty per cent of the patients undergoing this treatment show pronounced mental improvement, in fact several were seen in Vienna who had been inmates of the Nerven Clinic and who were now carrying on their duties as before.

The Austrians sustain the opinion that the improvement is due to the fever reaction (leucocitosis from the alien protein first, and afterwards from the sustained high fever), and not to the malaria parasite, as similar results have been obtained through fevers induced by other substances.

Upon examining a large number of spinal-fluid samples, fifty

per cent were found to be suffering from late secondary syphilis. Cases with alopecia, leukoderma, and syphilitic lupus having positive spinal fluids, were transformed to negative after the patient had suffered a course of malarial fevers. These observations which were made in the Finger Clinic brought about the use of induced fevers referred to as prophylaxis for neuro-syphilis. At the present time all inmates of the Finger Clinic are inoculated with malaria as soon as specific treatment for syphilis is begun.

In Porto Rico fifteen hundred syphilitic patients were admitted examined and treated in the Social Hygiene Clinic of San Juan during the past year. Of this number only 225 or fifteen per cent of the total were suffering from primary syphilis when admitted. In the majority of these cases the primary lesions were complex; at least nine per cent were mixed infections. Perhaps this is a result of the state of poverty in which our poorer classes live, and to the slight attention which is given to lesions in and about the genital organs. We noted that all lesions appeared in the genital organs or near them with the exception of two cases: one of which presented a primary lesion on the lip and the other on an arm, following a subcutaneous injection given by a male nurse. Hence, it may be seen that extra genital lesions are very rare in Porto Rico according to our experience. At least sixty-five per cent of the cases attending the clinics suffer from secondary syphilis in a latent state, according to the symptoms presented by the patient which after a careful historial study as well as a study of clinical symptoms and serologic examinations bring out the diagnosis. Out of this 65 per cent about forty per cent are suffering from congenital syphilis, if we are to be guided by the history record taken. Assuming that this estimate is correct, sixty per cent of these suffer from acquired syphilis. Of this large number of patients suffering from a latent form of syphilis, scarcely half of them had eruptive secondary lesions and those presenting eruptions were almost all colored people.

According to recent studies made by Kirle, future parasyphilitics will be found among those patients who have syphilis in a latent state and who do not present eruptive skin lesions; so if we accept the opinion of Kirle, parasyphilis should be much more common in Porto Rico. But the observations of the director of the Finger Clinic demonstrate clearly that this is not so because this is an old disease in Porto Rico and because of the possible prophylaxis produced by the endemic fevers so common to tropical countries.

Only about twenty per cent of the patients who attend the clinics present secondary syphilitic eruptions, almost all in the papulo

macular form. No pustular cases have been noted and only five cases presented the ring-shaped form. Observations of some interest have been made in the treatment of late secondary syphilis. These are similar to those made by eminent syphilologists in Vienna; four cases out of eight with alopecia areata gave a negative Wassermann reaction. Syphilitic leucodermia has been found in 140 cases; these patients present white spots, especially on the back and arms. Fifty per cent of the latter gave a negative Wassermann reaction.

Only one case of syphilitic lupus has been observed, the diagnosis being arrived at by elimination, because the Wassermann reaction gave a negative result. The writer observed some of the cases in Vienna, where the diagnosis is made by the reaction from Nogouchi Leutina. Here we observed that fifty per cent of the cases suffering from secondary late syphilis have a decided positive spinal fluid or a weak positive spinal fluid. So the errors in not considering these lesions as late secondary is due first to their uncommonness; second to the serologic analysis of the blood which gives a negative reaction in fifty per cent of the examinations, and third, because they respond, although very slowly, only to an intensive treatment.