

EXPERIMENTAL MEDICINE. — *Treatment of multiple sclerosis of rickettsial or neo-rickettsial origin.*

Report (\*) by Mr. Paul Le Gac, presented by Mr. Jacques Trefouel.

*[Abstract:]* Multiple sclerosis of rickettsial or neo-rickettsial origin can be treated with high doses of broad-spectrum antibiotics (such as terramycin, typhomycin, and aureomycin), in conjunction with hot and alginated balneotherapy. The resulting hypotension is combated with cardiotoxic agents. Quinton plasma treatment restores the internal equilibrium.

In two previous reports [1] [2], we showed that cases of multiple sclerosis appeared in the form of complications of rickettsioses or neo-rickettsioses, and that the principal lesions were vascular. We also showed that these primitive vascular involvements could affect the nerve tissue, through anoxia.

Starting with these findings, we established a treatment which, based on the effect of broad-spectrum antibiotics in conjunction with hot and alginated balneotherapy, includes the following effects:

- a. Neutralizing the virus;
- b. Eliminating toxins and wastes;
- c. Stimulating the cardiovascular system;
- d. Restoring overall condition; and
- e. Reducing the sequelae.

a. *Neutralization of the virus.* – The broad-spectrum antibiotics (terramycin, aureomycin, and typhomycin) were shown to be remarkably effective against rickettsias and neo-rickettsias.

The prescription of a high dose is imperative. The dose consists of 24 grams, administered at an initial rate of 2 grams per day. This treatment regimen should be continued in successive stages, with rest intervals, until a negative serological reaction is obtained. The daily consumption of fresh yeasts or ultra-yeasts should be prescribed in order to forestall any intestinal difficulties resulting from the lysis of the intestinal flora by the antibiotics.

Note should be taken of the danger inherent in timid prescriptions of 6, 8, and 10 grams, which, although they sometimes produce rapid improvements, often aggravate the disease, with an exacerbation of the symptoms. In fact, a low dose of the antibiotic always causes a serological and clinical reactivation, and this result can lead to false blame and to the prohibition of the use of antibiotics in cases of multiple sclerosis, in which they are actually the treatment of choice.

The choice of the antibiotic to be prescribed can be suggested by the serodiagnosis. A positive reaction for *R. prowazeki*, *R. mooseri*, or *R. orientalis* would encourage the use of typhomycin (chloramphenicol). A positive reaction for *R. conori* or *R. burnetti*, or for the neo-rickettsiae (X-14, V-14, or Q-18) would tilt the choice toward aureomycin or terramycin. However, this rule is not absolute, because a personal susceptibility to one or the other of the antibiotics may be present.

It is often useful to administer the entire range of these antibiotics in succession, because some of them (such as terramycin and aureomycin), in addition to their specific effect against the Rickettsiae and neo-rickettsiae, have a distinct effect against the associated toxins. Moreover, a single subject is often contaminated by several viruses.

b. *Elimination of toxins.* – The elimination of toxins is encouraged by hot and alginated balneotherapy. The packets of powdered algae intended for use in these baths contain a mixture selected (in rocky-bottomed coastal areas) from among the algae that are the richest in mineral salts, vitamins, and trace elements. Some of these algae (such as the red algae *Lithothamnion*)

also have phagocytic and bactericidal properties, or antibiotic properties (such as the green algae *Ulva latissima*).

These hot baths cause vasodilatation, which stimulates the awakening of circulation that has been compromised by the evolution of the infectious agent. They also encourage abundant sweating, which activates the elimination of wastes and toxins, while the organism becomes susceptible to the detoxifying and revitalizing osmotic exchanges. After arterial blood pressure has been checked, these baths should be prescribed at the temperature that causes the subject to sweat (which temperature varies from one individual to another). This temperature, which is usually on the order of 40° [Celsius], should be maintained continuously for a period of half an hour.

These baths are very fatiguing, and should be followed by bed rest for at least two hours, with the ingestion of a hot and sugared tisane. The patient should be allowed to recover between baths. The treatment regimen should start with at least three baths per week, and should be continued for at least two months.

At the end of the antibiotic treatment, this elimination is completed through the use of a low dose of acetylcholine, which stimulates the vascular tunica, with the possible consequent reawakening of latent sources of infection. The acetylcholine should also be associated with a few daily doses of antibiotics, still accompanied by ultra–yeasts.

*c. Stimulation of the cardiovascular system.* – The broad–spectrum antibiotics and the hot balneotherapy cause significant changes in the vascular system. These changes, which primarily involve blood–pressure levels, must be checked and monitored. Hypotension is the principal change that occurs, and is combated through the use of cardiovascular analeptic agents. Among this group of drugs, we recommend the use of low doses of preparations having a base of camphor and coramin.

*d. Restoration of overall condition.* – The involvement of the vascular system entails a disturbance of the nutrition of the tissues, which can cause a variety of deficiencies and severe physiological changes. These deficiencies and changes can be corrected through the use of a

calcium-based drug, through the use of testosterone propionate in the form of sterandryl (time-released), and, lastly, through treatment with Quinton plasma [3], which restores the internal equilibrium of the organism when the organism is most susceptible to this restoration. We actively discourage the use of cortisone and its derivatives, unless a valid reason exists for the use of corticotherapy.

*e. Treatment of sequelae.* – [We recommend the application of] the well-known traditional treatment, with, however, a few modifications. Specifically, never perform massage before the virus has been neutralized, and do not forget that massage can always reawaken any profound and latent sources of infection. Always start with very light massages, whose primary purpose should be to encourage circulation. Kinebalneotherapy is particularly effective.

At present, we can state the following conclusions: When the disease is of recent origin, the *restitutio ad integrum* [“restoration to wholeness”] can rapidly be obtained. When the disease has been present for a longer period of time, gradual recovery of the various different regions can be achieved, in a manner proportional to the absence of the formation of final lesions, over an indeterminate period of time that will vary from case to case.

(\*) Meeting of March 21, 1960.

[1] P. Le Gac, P. Giroud, and N. Dumas, in *Comptes Rendus*, Vol. 250 (1960), page 1937.

[2] P. Le Gac, in *Comptes Rendus*, Vol. 250 (1960), page 2299.

[3] R. Quinton, *L'eau de mer milieu organique [Sea Water: The Organic Medium]*, Masson (Paris, 1904).

The meeting was adjourned at 4:10 p.m.

L.B.