

The suggestion is made that in all cases of syphilis, particularly those in the primary and secondary stage, the patient be given an intraspinal injection of salvarsanized serum as part of the routine of treatment. This can be regarded as a prophylactic measure. Every case of syphilis is potentially one of paresis or of tabes, despite prolonged treatment. No lesion of syphilis creates a greater invalidism than an involvement of the central nervous system. The early application of the Swift and Ellis treatment offers the possibility of reduction in the number who become public charges as the result of cerebrospinal syphilis. This suggestion is offered with the hope that those who have entrée to clinical cases may determine its usefulness as a prophylactic measure.

AN ANOMALOUS TEMPERATURE-CURVE IN THE MODERATELY ADVANCED TUBERCULOUS

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The variability of the temperature-curve and the pulse-wave as usually observed in the tuberculous is so well known to all physicians that a reference to it at this time may appear to be somewhat superfluous, if not preposterous. A correct picture with the proper interpretation of the ordinary temperature-curve and pulse-wave in a suspected tuberculous person often strengthens our diagnosis, and such a picture as we usually see in moderately advanced, not very active, tuberculous cases, with a subnormal temperature in the early morning, normal toward noon, hypernormal in the late afternoon, and again slightly below normal in the evening, is generally described in every text-book treating on tuberculosis. An anomaly in the temperature-curve and pulse-wave, not described in any text-book consulted, and very little mention of which is made in the literature treating on the subject of phthisis as far as I was able to learn, came to my attention some time ago; and as I do not consider it a mere coincidence, I desire to call attention to it and the following observations.

If in a slightly advanced tuberculous subject the pulse-wave and temperature-curve are very carefully observed in the early morning, immediately on rising, always in the sitting posture, these observations minutely noted, and the patient then directed to proceed to make the necessary preparations for dressing, such as brushing the teeth, shaving, washing, combing the hair, then dressing, all of which should consume about thirty minutes, and then asked to sit down and the pulse and temperature again carefully taken, one will observe that the pulse has increased in frequency from 10 to 12 beats, but that the temperature has dropped correspondingly from 0.2 to 0.6 degrees.

As a control to these findings in the tuberculous, I requested a number of nurses and medical students, all in supposedly normal health, to report to me their early morning pulse and temperature findings, and a second observation in about thirty minutes after the first, all in the sitting posture, this to be noted very carefully and accurately daily for one week and then submitted to me for comparison. In every case I noticed a slight increase in the frequency of the pulse, usually from 1 to 4 beats, but no change in temperature was observed.

Many of my ambulatory tuberculous patients are supplied with a thermometer and a small note-book, and four times each day they count the pulse and take the temperature and make proper notation thereof in this note-book. Recently I asked a patient to take the temperature and count the pulse every morning, making the usual notations in the note-book as he was wont to do, very accurately but with this supplemental, that the early morning observation should be made twice instead of once and in an interval of half an hour, once immediately on rising in the sitting posture and again just before breakfast, also in the sitting position. I did not make known to him the object of my request, but almost the first question he put after handing me his record-book for scrutiny was why it is that the temperature was a little lower at the second reading than it was at the first.

I requested another of my patients, a very intelligent person, who is now suffering from moderately advanced pulmonary phthisis, that she take very accurate account of the temperature and pulse five times each day, particularly the two early morning observations. From May 26 until Oct. 24, 1912, in all 144 daily accurate observations were made, making some days only four, but chiefly five notations. In 107 of the 144 readings the pulse invariably increased at the second reading about 10 to 12 beats per minute with a corresponding decrease of an average of 0.4 degrees at the second reading in temperature; in fourteen readings the pulse showed the accustomed increase at the second reading, but no difference in the second temperature observation was noted, the temperature in both readings being the same; in the remaining twenty-three observations the second temperature and pulse records were omitted.

Another patient suffering from moderately advanced pulmonary tuberculosis of the left lung (a successful compression of the diseased lung was made by means of an artificial pneumothorax by Dr. Ethan A. Gray at the Fresh Air Hospital, Oct. 27, 1913), at my request noted carefully the temperature-curve and pulse-wave for ten days, beginning the first day of this year, with this difference, that the first observation should be made while still in bed just before rising, and the second observation half an hour thereafter or just before breakfast. The average pulse for the ten days for the first reading was 88; the second reading half an hour afterward was 102. The temperature observations for the same time were 99 for the first and 98.7 for the second. These observations tend to show that, in the not very active, moderately advanced tuberculous person, if the temperature and pulse are taken immediately on rising, in the sitting position before the least effort or exertion has been made, or even before rising, and again in about thirty minutes after a little exercise, the pulse will have slightly accelerated from about 10 to 12 beats per minute, and that the temperature has not proportionately risen, but in most instances has fallen from 0.2 to 0.6 degree during that time, and that no such observations are made in the pulse-wave and temperature-records in non-tuberculous subjects.

In looking over the literature of the last few years, I find a single reference to this phenomenon. Possibly by close observation and proper notation of these facts, definite data might be gathered which would be of great diagnostic value not only in the moderately advanced cases, but more particularly in the early or in suspected cases. It would be necessary that a great many of these observations extending over long periods of time be

made, commencing at the onset or very early in the beginning of the disease, comparing the pulse-wave and the temperature-curve of the perfectly healthy with the slightly pathologic subject. This may lead finally to a definite and comprehensive understanding of these obscure facts, and may greatly assist the diagnostician, in connection with all the other signs and symptoms, to recognize early and obscure tuberculosis.

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ELEPHANTIASIS, WITH A REPORT OF A CASE

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Elephantiasis in temperate latitudes is rare enough to deserve more than passing notice. Most cases reported are due to repeated erysipeloid attacks, tumors, granulomas, or extensive operative interference with the lymphatics of the affected area. Shattuck¹ tells us of three cases of lymphatic elephantiasis in which repeated attacks of inflammation were the chief cause of the condition. Then Brault,² while emphasizing the general causes suggested above, presents one case of this disease due to paratuberculosis, microscopic examination failing to reveal giant cells, or tubercle bacilli. Again, Thompson³ records four cases, from one of which microscopic sections were made and studied by Professor James Ewing. This study showed the usual picture of chronic edema; some hyperplasia of the malpighian layer, hypertrophy of the sweat-glands, and an atrophy of the hair-follicles. In 1912, Hunter⁴ gives a history of a woman who had never been outside the British Isles and whose condition followed repeated attacks of cellulitis. Here again the microscope showed nothing but chronic edema. The same is true of the cases reported by Van der Veer⁵ and Coenen.⁶ All these men are of the opinion that elephantiasis outside the tropics is due to recurrent attacks of cellulitis, tuberculosis, syphilis, tumors or extensive operative interference with the lymph drainage.

In the late autumn of 1912 I saw at Ely, Minn., with Drs. Ayres and Parker of that city a case of ele-

phantiasis in a patient who had never been in the tropics. The history of the case is as follows:

Patient.—Mrs. M. K., aged 32, was born in Austria and lived there till 1903, when she and her husband moved to Ely, Minn. Shortly after her arrival the disease began to make its appearance. Patient noticed a swelling of both legs and the abdomen, beginning in 1904, which gradually grew worse until she was practically completely disabled in 1909. There is no history of cellulitis preceding this condition nor of any fever such as usually precedes a true tropical elephantiasis.⁷ The blood was not examined for filaria at any time.

The patient had no living children. Three pregnancies resulted in a still-born full-term fetus in 1904, still-born seven months' fetus in 1906, abortion of a four months' pregnancy in 1908. The history is negative otherwise. No cases of a similar nature are known by her husband and friends in that part of Austria from which they come. The patient died in the spring of 1913.

A partial necropsy showed a thickening of the abdominal wall, becoming greater from the umbilicus down to the pubes,

where it measured 3½ inches from skin to peritoneum. There was a marked hypertrophic cirrhosis of the liver and a large quantity of ascitic fluid. Sections of the liver were not obtained, but sections from the thickened abdominal wall show an encapsulated filarial organism distributed throughout the deeper tissues as shown in the accompanying drawings. Many of them are calcified.

So we have a case of filarial elephantiasis in a patient who has never been in regions in which that disease prevails. What variety of organism was present could not be determined, but probably it is the filaria of Bancroft, the morphology of which is gone into at length by Fulleborn⁸ and also by Foley.⁹ How this infection was acquired is a matter of speculation, but filariae have been found in the blood of the horse,¹⁰ in camels,¹¹ and in dogs.¹² Dogs have also been inoculated with the

filaria by means of the mosquito.¹² So it is just possible that the definite relation between the incidence of filariasis and elephantiasis of which Daniels¹³ speaks is not entirely confined to the tropics and that some cases of elephantiasis in temperate climates are due to filariae.

I wish to express my gratitude to Drs. Ayres and Parker for their kindness in allowing me to present this case.

7 West Madison Street.

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