3. The only European affected at Standerton was attached to the Native Sanitary Corps—a unit of which 76 per cent. suffered from scurvy. Let it be noted, however, that this European lived with these natives. His diet was similar to that of the other European soldiers at Standerton, but he spent the whole of his time in the company of these scavengers and by reason of this mode of life was freely exposed to any mouth-to-mouth infection. On the other hand, the family of the head native, consisting of six individuals, was unaffected by scurvy. Their dietary was that of the Native Sanitary Corps, but they lived in a tent at a short distance from the scavengers' encampment and their standard of personal cleanliness was of a high order.

The varying incidence in the two units—the Native Labour Corps and the Native Sanitary Corps—namely, 16 per cent. in the former and 76 per cent. in the latter—cannot be explained by the food alone, since both units were on precisely the same diet.

4. With regard to the other natives inspected at Standerton not one of the 150 employed at the burgher camp as servants to the European camp staff was found to be affected, nor did natives employed as domestic servants in the European military messes, shops, or households in the town show signs of the disease; but in the remaining units, both civil and military, scurvy prevailed directly as the filthy habits of the natives were allowed to go unchecked by direct European control.

5. Of those sufferers from scurvy admitted to the military hospital at Standerton 12 per cent. died. Of those who recovered 90 per cent. returned to their former duties, their former dietaries, and their former surroundings; and though they lived among men afflicted with scurvy, yet the hospital records do not furnish a single instance of a patient once recovered from scurvy seeking readmission for a recurrence of the disease.

These facts, therefore, concerning the incidence of scurvy in the various bodies of individuals seem to be against the contention that food is the sole cause of the disease; and, moreover, the clinical facts also would seem to oppose the contention. The infection appears to occur through the mouth, the general system being involved later and secondarily. The manner in which the primary infection occurs and how it gives rise to the manifestations of the disease in the mouth are points on which it is not easy to make any definite statement and further investigation is required.

In conclusion, I submit that the facts adduced seem to prove that scurvy is not due to either the presence or absence of any particular kind of food from the dietary but rather to an infection for which food may act as a vehicle under conditions of dirty storage or dirty preparation; and considering that the disease prevailed in inverse proportion to the standard of personal hygiene of the individuals affected its infectivity would seem to depend on the insanitary habits and perhaps the unwholesome occupation of those who were its victims.

WEEKLY DIETARY SCALES AND INCIDENCE OF SCURVY.

A.—In use at all Burgher Camps till Dec. 31st, 1901.

Adults.—Flour, 7 lb.; sugar, 12 oz.; ground coffee, 6 oz.; salt, 4 oz.; tinned meat, 2 lb.

Children (6–12 years).—Flour, 7 lb.; sugar, 12 oz.; ground coffee, 3 oz.; salt, 2 oz.; tinned meat, 1 lb.

Children (1–6 years).—Flour, 3½ lb. Remainder, as children (6–12 years).

Note.—When fresh meat served out—adults, 3 lb.; children, 2 lb. Tinned milk issued, “made up” by dispensers with water, ready for drinking, for children only, and issued daily but for adults only on medical officer's order. Wood and coal issued when required.

B.—Introduced to all Burgher Camps Jan. 1st, 1902.

Age.	Vegetables.	Flour.	Syrup or sugar.	Coffee.	Fresh meat.	Salt.	Milk.*	Rice.	Soap.	Butter.
	lb.	lb.	oz.	oz.	lb.	oz.		lb.	lb.	oz.
Adults ...	1½	7	12	7	4	4	1 tin	1	½	4
Children, 6–12 years ...	1½	5	12	4	3	4	7 qts.*	½	½	4
Children, 2–5 years ...	As supplied by camp matron.	3½	12	—	2	2	14 qts.*	½	½	4
Children under 2 years ...		2½	12	—	—	2	14 qts.*	—	½	4

* Tinned milk, made up by dispensers with water, daily ready for consumption.

A + B.—Incidence of Scurvy.

Camp populations—children, 48 per cent.; adults—male, 12 per cent.; female, 40 per cent.

Burgher camp, Volkrust, population, 5000, nil; burgher camp, Standerton, population 5000, nil; burgher camp, Middelberg, population, 6000 Europeans, 100 cases.

Outbreak in December, 1901, and January, 1902.

C.—European Soldiers—at Various Times.

Bacon or cheese, jam, frozen meat, fresh meat, tinned vegetables and meat, coffee, sugar, salt, rum, soap and fuel, tea, lime-juice (not usually taken).

Admissions to No. 17 General Hospital, Standerton, 22,000. Scurvy, nil.

Examined on duty, 3000. Scurvy, one. (This man was in charge of transport section of Native Sanitary Corps, F.I. 2.)

D.—For Natives employed in Burgher Camps: Standerton, Middelberg, and Volkrust.

Flour, 7 lb.; sugar, 8 oz.; coffee, 4 oz.; salt, 4 oz.; meat, 1 lb.

Total employed at each camp, 150.

Scurvy at Middelberg, one case; scurvy at Standerton and Volkrust, nil.

E.—For Natives employed by Military as Muleteers.

Lime-juice issued in December, 1902, but not taken.

Bread, flour, or biscuits, 7 lb.; sugar, 14 oz.; coffee, 3 oz.; meat, 7 lb.; salt, 2 oz.; tinned vegetables bi-weekly, as for European troops.

Attached—1st Essex, Rifle Brigade, Leicesters. 60 examined (July, 1902) outside Standerton. Scurvy, nil.

Attached—Army Service Corps Transport at Standerton, 1903.

Officers' Cape Cart line, 9 men. Scurvy, nil.

Police ... 8 men. Scurvy, 4.

Muleteers, 400 examined. Scurvy, 32 per cent.

Attached—Pom pom Section, 9 men. Scurvy, nil.

Attached—19th Hussars and 83rd Field Battery R.A., 67 men. Scurvy, 22 per cent., at Standerton, 1903.

F.—For Labourers employed by Military as Porters and Scavengers.

Mealie meal, 16 lb.; meat, fresh, 1 lb.; lime-juice, 1 oz. weekly in December, 1902, but not taken.

Excess mealie meal (this was burnt and drunk as a black liquor termed “native coffee”), fermented makes a drink called “mahow” (intoxicating)

I. Native Sanitary Corps (Scavengers).

February, 1903, at Standerton.

1. Examined, 34. Scurvy, 76 per cent.

2. Transport, 7. (To the transport section is attached the European under Dietary C who was affected with scurvy.) Scurvy, 100 per cent.

3. Later examined, 20. Scurvy, 100 per cent.

4. Head native with family of six, living separate. Scurvy, nil.

II. Native Labour Corps (Porters).

Employed, 120. Scurvy, 16 per cent. Examined, February, 1903, at Standerton.

G.—Natives employed by Repatriation Department, Standerton, as Muleteers.

Biscuits, flour, or meal, 7 lb.; meat, chiefly fresh, 7 lb.; coffee, 7 oz.; salt, 3½ oz.; lime-juice, 1 oz.; sugar, 21 oz.; wood, 14 lb.

Employed, 900; examined, 500; scurvy, 50 per cent.

In hospital, 14; scurvy, ½ = 86 per cent.

In detention tents, 14; scurvy, ½ = 86 per cent.

Canterbury.

THE TREATMENT OF TABES DORSALIS AND ITS PROGNOSIS.

By DR. MAURICE FAURE.

It is an erroneous idea to consider tabes as a disease amenable to one method of treatment, that is to say, by drugs. Whether the drug be nitrate of silver, which was formerly employed, or mercury, which is employed nowadays, the idea remains the same and the object is to cure the patient by means of a drug. A nervous disease is not an equation in which the observer may set one poison as equally opposable to another poison. The evolution of tabes bears a definite relation to various infections and intoxications. The patient is always a complex problem and the physician must in every case take into consideration such causes as syphilis, overwork, alcoholism, tobacco poisoning, influenza, tuberculosis, and the like. On account of the predominant part played by syphilis in the pathogeny of tabes it is indisputable that antisyphilitic treatment ought always to be tried, at all events at the beginning of the attack, and especially if the tabetic patient have not previously undergone antisyphilitic treatment, but this treatment should not be kept up as a routine and particularly when it is observed to give bad results. Certain cases of syphilitic tabes which are vigorously treated with mercurials given in increasing doses from the beginning of their rapid evolution are often much improved and furnish the greater part of the cures

(Lemoine, Leredde), but the systematic giving of mercury or of iodides in big doses in those patients in whom tabetic lesions are already well marked, whose general health is broken down, and who are suffering from auto-infections arising from the gastro-intestinal tract, the bladder, or the lungs, does nothing except increase the number of poisons in an organism which is already overcharged with them, and as a consequence aggravates the nervous disorders which are the consequences of those poisons.

It is indisputable (1) that no tabetic gets well solely on account of the quantity of iodide or of mercury which he absorbs, and (2) that aggravation of the disease is more frequent among tabetics who are put on an antisyphilitic treatment in increasing doses than among those who are not treated in this way (Belugou, Faure). It is necessary to avoid attributing exclusively to the action of heroic remedies such as mercury the relaxations and the diminutions in the symptoms of disease which are sometimes observed in the majority of cases of tabes, for such ameliorations are the rule, and it is incorrect to say that locomotor ataxy must be a disease which is necessarily and invariably progressive (Brissaud, Joffroy, Raymond, Marie, Ballet, and others). The disease is steadily progressive in a third of the cases. It is arrested, improved, or gets well in about a fourth of the cases and in the remainder it proceeds very slowly with periods of quiescence only affecting the life of the patient seriously on occasions, and during the rest of his life offering him the possibility of living a life the activity of which doubtless must be diminished, but which is by no means very uncomfortable and is markedly different from the average life which used to be supposed to be the only one in view for a tabetic; and this life may go on for a long time, for by statistics collected at Berlin, La Malou, and Bicêtre it appears that the duration of life of a tabetic is very nearly the same as that of a normal patient (Leyden, Belugou, Faure, and P. Marie).

Why, then, are the present prognosis and that formerly held so different? For many reasons. First, it is obvious that in the present day nearly all medical men know how to diagnose tabes in its very early stages, whereas in former years the diagnosis was only very rarely made. As the patient is made the sooner aware of his malady by so much is he the sooner treated. Secondly, the very general employment of the treatment by mercurials and iodides of syphilitic patients is probably a reason for the diminution in the evolution of tabes which may be called the daughter or niece of syphilis (Babinski, Leredde). And thirdly, because a tabetic patient nowadays is treated as a tuberculous patient and so many other patients suffering from chronic diseases, so that he does not sit down with his hands folded and resign himself without a struggle to the fatal sentence which used to be pronounced against him as soon as the diagnosis of tabes was given. The tabetic takes care of himself, that is to say, just as a tuberculous patient does; he modifies his mode of life, he gives up certain periods to treatment, he regulates his affairs and no longer carries on his work as a normal man but as an invalid—in short, he makes terms with his enemy and sacrifices a little to gain much (*il fait la part du feu*). He lays down a special regimen for himself and so is enabled to economise his life, so to speak, and to make the smallest demands possible upon his vitality. The physician who undertakes the care of a tabetic patient should map out his code of directions so as to attain the mean between two extremes. (1) He must not allow the patient to think that there will be a complete and radical cure within a few months or that there is any specific remedy for his disease; but (2) he must not allow his patient to abandon himself to his lot as one without hope or to think that his disease is inevitably tending towards death, for such is not the case. The physician should further inform the patient that the disease from which he is suffering will in all probability not get any less during his life, that it will diminish his capacity for work, and will be the cause of suffering and of discomfort, but that on the other hand the watchful care of the medical attendant and the willing coöperation of the patient will to a great extent avoid the occurrence of possible complications. Finally, he must tell him that tabetic patients have been known to get quite well.

As a matter of fact, the arrest with the persistence of the abolition of the patellar reflex or of Argyll Robertson's sign, or of any other symptom without importance has the same value for the patient as a cure. Besides this the medical man must attend carefully to the state of the patient's

bladder and see that it is washed out; he must prevent the accumulation of faecal matter in the intestines which so commonly occurs in tabes; he must keep a watchful eye upon his patient's nourishment and sleep and see that he is not underfed and that he does not suffer from insomnia; he will order him to live as much as possible in the open air and will protect him from overwork, either mental or physical; and finally he will watch with care the condition of the circulatory system. By doing this the physician will be in the way to combat most of the causes of death which supervene in tabes. Moreover, while this long watch is being kept the physician must remember to order such drugs as may be suggested by circumstances.

The physician should besides impress upon his patient the necessity for taking an annual "cure" of one or more months' duration during which the patient residing in a sanatorium should devote himself entirely to the task of repairing the damage already caused by the disease and of putting himself into a condition to resist the attacks of complications which may be expected to occur. During this therapeutic retreat the patient should by means of special exercises learn how to train his respiratory system, as it is owing to defects in this that a tabetic patient suffers from respiratory crises, such as attacks of suffocation, of bronchopulmonary infection, or of hæmoptysis. He must also train his excretory system so far as regards urination and defecation. He will also find that he will greatly improve and possibly will recover altogether his powers of voluntary movement over which he may have completely lost control. During the period of retreat he may also submit himself to a special hygienic course of thermal hydrotherapy, and finally must employ all the methods which experience has already shown to be useful in cases of tabes.

But the continuity of the treatment must be maintained not for a day, or a week, or a month, but throughout the years. After years of strict care and of watchful medical surveillance the tabetic patient will find himself a changed man. Even though he do not recover the integrity of all his functions yet he may at least make sure of the prolongation of his life, of being able to do some kind of work, and to have health and strength sufficient to enable him to lead a useful and interesting life. It is by following these directions that the physician will find himself in a position to give in a case of tabes a prognosis which, if not absolutely good, is yet quite bearable in the majority of cases.

Paris.

SEVEN CASES OF HOUR-GLASS CONTRACTION OF THE UTERUS.

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THE following examples of hour-glass contraction of the uterus occurred in the last 200 cases of midwifery that I have attended.

CASE 1 (No. 58).—The patient was a middle-aged multipara. I was called in by a *confrère* when the child had been born five hours and the patient was much exhausted from loss of blood and prolonged manipulation. After examination I found that, with the exception of a small piece removed with the cord by forcible traction before my arrival, the placenta still remained in the upper portion of the uterus. Below this dilated upper third of the uterus was a firmly contracted ring of uterine muscle with an aperture of about one inch in diameter. Pressing the finger-tips of my right hand firmly together to form a cone I gradually forced them past the obstruction, then clenching my right fist I still further dilated the constricting part and after some manipulation managed to work round between the uterine walls and the remains of the placenta. This done the latter was easily removed and the left hand, which all the while had been grasping the fundus, then had no difficulty in inducing firm and general contraction of the womb. The lower two-thirds of the uterus had been the while in a complete state of inertia for my right hand and forearm had entered the uterus per vaginam as far as the elbow through a mass of jelly-like clots before I could reach the constricted orifice and the retained, though unattached, placenta. Friction of the fundus externally had been carried on intermittently, I believe, before I arrived, and the patient