AN INAUGURAL DISSERTATION
ON
Typhoid Fever

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Typhoid Fever

This disease, as some might suppose, is not of recent origin. But notwithstanding it may have prevailed for centuries, it is only a few years that typhoid fever has been recognised as a distinct disease.

Since the pathological researches of Louis and others it is pretty generally admitted that it is as much entitled to rank as a distinct or separate disease as scarlet fever or small pox. Authors have been greatly puzzled to find a name expressive of the pathological condition of this malady—several names have been proposed but none seemed to be satisfactory, so that we
have to content ourselves with the quite insignificant one above.

Symptoms—This disease is sometimes sudden in its attack, being ushered in by a chill and other symptoms common to febrile diseases. But generally the stage of invasion is scarcely perceptible. The patient only complaining of slight indisposition. As the disease advances the patient makes more complaint but is unable clearly to define his feelings. Generally complains of head-ache and an indisposition to muscular exertion. The pulse is slightly accelerated but rarely increased in volume. The tongue seldom presents any change in this stage of the disease except that the tip and edges are
somewhat readier than in a state of health. There is a little fever at times, together with restlessness and a very slight degree of sensorial disturbance at night.

The bowels may be costive but more commonly there is a tendency to diarrhoea—the passages throughout the whole course of the disease being of a watery character.

After the disease has thus progressed a few days, generally a week, it appears to reinforce itself and the patient is admonished by his feelings that further resistance is impossible. This may be denominated the second stage, or stage of reaction. It is sometimes ushered in by a chill. The pulse is accelerated and sometimes as full as in ordinary remit.
ten fever— at other times there is no perceptible change— sometimes it is even slower than it is in health. The fever now is of pretty high grade and generally continues so, with occasional remissions, for several days— day after another week. The tongue in this stage becomes furred except the tip and edges, and presents that narrow, long and red appearance which is so eminently characteristic of this fever. It also has a tendency to dryness— and sometimes instead of becoming furred it presents a remarkably clean and smooth surface. It is in this stage of the disease that the patient usually makes most complaint— generally complaining of more or less headache. Some experience other symp-
items common to febrile diseases, such as pain in the back and extremities, soreness of the muscles and a restless feeling as if fatigued.

Epistaxis frequently occurs and is considered by some as being characteristic of the disease. Pain is seldom experienced in the abdomen except when pressure is made, it is then more appreciable in the right iliac region.

A tympanitic state of the bowels usually exists and a gurgling sound is produced when pressure is made with the hand. Diarrhoea or a remarkable susceptibility to the action of cathartic medicines prevails during this and also the other stages of this disease. At the end of seven or eight days from the commencement of this period of the disease
The violence of the symptoms sometimes seems to abate, and one not well acquainted with the disease would be led to conclude for a day at least, that his patient was convalescent, but soon he will discover that instead of convalescence the disease is taking deeper hold on the vital organs.

It has now assumed the third stage, or period of depression, which is characterized by the subsidence of the fever, headache, &c. of the second stage, and the superintervention of a state of ease and indifference manifested probably in no other disease. The patient says he is getting well when it is evident to the physician and others that he is growing worse. Delirium sets in — it may be partial, or complete — the patient appears
to be sleeping but at the same time muttering as if dreaming. The vision is frequently perverted—hearing is difficult, or there may be a ringing in the ears.

During this stage it is not uncommon for the tongue to become very dry or parched and sometimes cracked, the lips also—the upper one being drawn up so as to expose the teeth which soon display a collection of sores. It is with great difficulty that the tongue can be protruded. Meteorism is more manifest in this than the previous stage, being clearly evinced by the gurgling noise produced in swallowing liquids. The patient complains of a peculiar dryness and sometimes soreness of the throat. Cough is not uncommon, generally dry
at first, but during convalescence it is accompanied with considerable mucous expectoration.

On examining the surface of the abdomen, spots somewhat resembling flea-bites may be seen—varying in number from two or three to thirty or forty and sometimes more. This eruption is considered pathognomonic of typhoid fever—but it is not very useful as a diagnostic symptom from the fact that it does not make its appearance until the disease has made considerable progress.

This stage, like the two preceding, generally lasts about seven or eight days, after which convalescence usually takes place. Sometimes there will be a slight amendment of the symptoms for a day or two,
such as a return of moisture and
cleaning of the tongue together with im-
provement of the general expression of the
countenance etc. of the patient, and then
the same train of symptoms may be
renewed and continue another week.
This alternation of symptoms is not un-
common in the severer form of this
disease.

There are other symptoms which might
be enumerated, but these are the ones
by which typhoid fever is most generally
characterized.

The cause of typhoid fever is not known.
Some suppose it is produced by contagion,
but the proof in favor of that doctrine
certainly falls very far short of estab-
lishing the fact. Unlike most other
fevers, it seems not to have any pref-
erence, or at least very little, for climate, season or condition in life—prevail-
ing alike in the north and the south, spring and fall, winter and summer—
attacking the rich as well as the poor
and Vice Versa.
The diagnostic symptoms of this disease
are the slow and insidious mode of at-
tack, the diarrhoea or peculiar suscepti-
bility to the action of cathartics, the
dry, red and pointed appearance of
the tongue, the rose-coloured spots, the
 tympanitic state of the abdomen and
the stupor or delirium.
The prognostic signs in this fever
are very uncertain—the symptoms
may appear to be mild and yet
the patient may suddenly die—and
on the other hand cases presenting
the most aggravated symptoms not unfrequently recover.

This, like other diseases, is more fatal at some seasons than it is at others.

The mortality of the disease is variously estimated. About five per cent is the number most generally agreed on.

The favorable symptoms are diminished frequency of the pulse— the tongue assuming its natural appearance and moisture— return of consciousness and an abatement of other symptoms which may have been present.

The unfavorable indications are complete delirium, excessive subcutaneous Tendinum, a notion on the part of the patient that he is from home and desiring to return, hemorrhage or involuntary discharges from the bowels.
and coldness and clamminess of the skin. This disease, perhaps, presents as many anatomical lesions as any other, but it is especially characterized by inflammation and ulceration of the mucous follicles of the ilium, generally denominated Peyer's glands. The solitary glands of the ilium and also the mesenteric glands are usually affected in the same way.

Treatment — Before commencing the treatment of a case of typhoid fever it is highly important that the physician take into the account two general characteristics of the disease, viz: the tendency to diarrhoea and the natural duration of the malady. The latter of which cannot be cut short by any means known to the profession. Considering the
first, it is evident that active catharsis, a mode of treatment frequently resorted to in febrile diseases, would be injurious in this. And considering the second it is equally evident that active de-pletion either by purging or blood-letting will not do so well in this as it would in most other reactionary fevers. A great deal has been said and written on the subject of treating typhoid fever and almost every variety of treatment has been adopted, but after a careful examination of the whole matter I am led to conclude that our knowledge concerning it is principally of a negative character — that is, physicians know pretty well what kind of treatment is injurious to the patient, while on the other hand they know of no remedy that will cure the disease.
It must not be denied however that we possess articles in the materia medica that, when judiciously employed, exert considerable influence in conducting it to a favorable termination.

In the first stage or what is here designated the stage of invasion, nothing is required more than to attend to the condition of the bowels— if they are constive recourse should be had to mild laxatives— if there is diarrhoea, it should be restrained by the use of anodyne astringents. It may be proper to state here that these two conditions of the bowels are to be treated as just directed, throughout the whole course of the disease. The patient should use a light diet and avoid exposure to heat or cold and also refrain
from physical exertion. It is not unlikely that many cases are made worse by the patient trying to "wear off his complaint" in persisting against his natural inclinations.

In the stage of reaction, in addition to the treatment recommended for the first stage, the remedies must be antiphlogistic. When there is great heat and dryness of the skin, cold water is the best antiphlogistic we possess. It should be applied to the surface frequently, by means of a sponge or soft towel. It may be poured on the head of the patient and if he desire it he may be allowed a free use of it internally. In the use of diaphoretics great care should be taken to select such as do not have a tendency to irritate the
bowels. Some recommend tartar emetic, but in a case of uncomplicated typhoid fever I think it is better not to use it—the indications which it is designed to fulfill may be met by other articles with less risk of irritating the bowels. Cold water, lemonade or the effervescing draught may be used with very good effect. If there is not much fever, equal parts of spirit of nitric ether and camphorated tincture of opium—teaspoonful every three hours—is as good as any diaphoretic that can be used in this disease. Spirit of turpentine, either alone or in combination with other articles, is highly recommended as a remedy in this fever. Some use it throughout the entire
course of the treatment. Professor Wood of Philadelphia places great confidence in it in the latter stage of the complaint especially if there is great deficiency in the secretions and a marked tympanitic state of the bowels. Professor Bowling of this University considers it almost a specific. He uses it from the commencement. Considering the unprecedented success which he has had in the treatment of this disease, I deem it appropriate to give a synopsis of his treatment taken from my note book. It is as follows—bleed if the local indications seem to require it—commence with turpentine at the commencement of the fever if the bowels are costive give a cathartic of oil and turpentine.
then small doses of turpentine with gum-arabic and compound spirit of lavander.

A
Mucilage gum-arabic 3 i
Comp. Sp. Lavender 3 ss
Sp. Turpentine 3 i

doze—table—spoonful every three hours.
If the fever is high sponge the body with cold water—allow no solid food—give chicken water—cold water adulcitum—lemonade—if diarrhoea occurs take, Subnitrate of bismuth 3 i.

Vit. Silver 3/2 i
Opium 1/2 i

make twelve pills—dose, one every three or six hours according to circumstances—if delirium comes on withhold opium and apply cold water to the head, cup or blister the back
of the one–leech the temples–other complications to be treated on general
principles–in the advanced stage
administer stimulants.
A diversity of sentiment exists in regard to the use of calomel. Some
contend that it is not necessary, and
even that it is hurtful in any form
of this disease–while others rely on
it–as a cathartic in the commencement
and also as a dilatagogue in the
advanced stage of the complaint.
The truth in reference to this mat-
ter doubtless exists in a medium
between these extremes. I have no
doubt–but there are many cases
in which it would be injurious,
and on the other hand cases might
occur in which it would exert a
salutary influence. It is not applicable to those cases which present a clean and rather raw appearance of the tongue.

In the third stage the treatment should be slightly stimulating or tonic. For this purpose carbonate of ammonia, wine or brandy, or quinine is most generally employed. This disease is subject to various complications and modification, which of course might require a corresponding treatment—but as this is my first attempt at a composition of this sort, I will content myself with having given a brief statement of what I conceive to be the symptoms, course, and treatment of a simple case of typhoid fever.