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TYPHOID FEVER

AS WE SEE IT IN CENTRAL NEW YORK.*

By H. L. ELSNER, M. D.,
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It is not the writer's object to give you a treatise on typhoid fever—its pathology, symptoms, and everything pertaining to that disease—in the space of this essay. That has been done by others whose accurate and keen observations have been given to the profession during the last twenty years. For the typical cases of typhoid we can find no better authorities than Griesinger, Liebermeister, Lebert, Murchison, and a score of others. All physicians who have been in active practice and seen a fair number of fever patients are well aware of the fact that in central New York but few of their cases follow the train of symptoms laid down in our leading text-books on typhoid fever. The cases that do follow exactly the descriptions of our leading authorities are rather the exception than the rule. Our cases are without the characteristic or typical temperature-curve. Their symptoms do not follow each other in regular order; in fact, their course seems different from the

* Read before the Third Branch of the New York State Medical Association, June 9, 1885. A number of temperature charts were shown at the meeting, but, in order to save space, they are not published.—Editor.

cases collated. The object of this paper is to lay before you the result of my clinical experience with the disease mentioned, and to prove to you by my records that our cases are atypical. In central New York you will have noticed that each year our fevers show some different phase; that each endemic has its characteristic manifestations, which cause it to differ from the typhoid of the previous year. Some epidemics, or even isolated cases, are influenced by a large and powerful malarial element; others are associated with complications changing the entire course of the disease, or markedly modifying it. Let us look, first, to the prodromes of the fever as we see it. In not a few cases of pure typhoid we have found our patients presenting, with a high temperature, following a more or less severe chill without having experienced a single prodromal symptom. In these cases there was no gradual rise to a higher temperature; but without prodromes we are at once plunged into a state of affairs which we would hardly expect in typical cases before the end of the fifth or seventh day. In one case, seen with Dr. A. S. Edwards, the patient was taken suddenly, on returning from his work, with a slight chill and a temperature of 104° F., all symptoms warranting the diagnosis of typhoid. Death took place on the sixth day of the disease. On post-mortem examination we found the enlarged spleen and mesenteric glands, with the characteristic appearance of Peyer's patches. These lesions at once proved the case to be typhoid beyond a shadow of doubt. Some of the cases do have the usual prodromes well marked; but the fact is established that, in a goodly number of our cases, there is an entire absence of prodromes; that in a few cases the gradual rise of temperature does not take place, but we have at once a high temperature followed by the characteristic rise and fall of the second week of typhoid. For the confirmation of this fact I would refer you

to Charts K, O, and P. In children we frequently find a prodromal stage of catarrhal symptoms showing themselves in catarrhal bronchitis or broncho-pneumonia. I will not detail the history of patient M. L., but refer you to Chart Q, where there was a pneumonia followed by catarrhal bronchitis, and finally typhoid, with alarming hæmorrhage, on the thirtieth day of his sickness. In those cases not at first burdened with some complication we are safe in saying that violent chills are rather the exception than the rule. Most frequently there are sensations of cold, as "cold shudders" or "cold streaks." These sensations continue usually during an entire day, and are accompanied with headache. Violent chills occur in those cases with an intermittent tendency. In most cases we have the usual malaise, change of disposition, and listless and disinterested manner of the patient. Gastric disturbances are found in some cases during the first days of the disease, taking the place of other early symptoms. It is often difficult in these cases to give a positive diagnosis, for we may be justified, if there are also diarrhœa and abdominal tenderness, in diagnosticating gastro-enteritis, or some other abdominal disease with like symptoms. In these cases the epistaxis and facial appearance of the patient will aid in making the diagnosis. Gastric irritability continuing into the second and third week is a serious and often unfavorable symptom. In 60 per cent. of my cases there was an early diarrhœa; 40 per cent. of the patients suffered from constipation. This constipation is often obstinate, and, before resorting to any measure directed toward its relief, we are warned by the ileo-cæcal tenderness, and the other symptoms, that the patient has enteric fever.

A small admixture of blood is sometimes found in the stools during the first days of the disease, while in two cases I have found a free discharge of blood. In the first

of these cases this bloody discharge was the symptom which led the patient to seek medical advice. In the second case there was a distinct venous hæmorrhage. These early hæmorrhages were found in cases of enteric fever with marked malarial symptoms. In some of our cases the diarrhœa was superseded by an obstinate constipation. In not a single case of typhoid disease have I been unable to detect tenderness in the region of the ileo-cæcal valve at some time during its course. This ileo-cæcal tenderness is not influenced by the severity of the disease or the amount of ulceration. *It is present in all cases of typhoid fever, however mild or severe the manifestations.* To this point I have given the closest attention in the examination of my patients, and it is one which I can positively assert. In typhoid fever, as we see it, epistaxis is one of the most frequent symptoms. In some cases it is mild, in others of sufficient gravity to require surgical interference. Early profuse nose-bleed is more frequently found in the severer forms of the disease. Nose-bleed profuse after the tenth day is always to be regarded as an ominous sign. There is no characteristic appearance of the tongue in our forms of typhoid fever. Some of our cases have led to the death of the patient after severe hæmorrhage or perforation, with a moist tongue from the first to the last day of the disease. In some of the most critical cases of typhoid that I have seen there has been a moist, red-tipped tongue throughout the course of the disease. Repeatedly we find the dry, hard, cracked tongue, bleeding at its edges, with sordes on the teeth. This appearance of the tongue is found in the graver forms of the disease. We are more likely to find intestinal hæmorrhage and other intestinal symptoms in a case with the dry tongue than with the moist tongue. The pulse goes hand in hand with the temperature during the height of the disease; after severe hæmorrhage it is more rapid, and even dicrotic. If the temperature is

high the pulse is correspondingly high. I hardly think that any one of us could diagnose typhoid fever from an examination of the pulse, as there is nothing characteristic in it, any more than a physician could tell the true state of a fever patient without the daily use of the thermometer. The roseolar eruption is usually present; only occasionally do we fail to find it; when I have failed I have thought that it was overlooked. In some cases the eruption is quite profuse, but in the majority it makes its appearance at the time and in the manner mentioned in the books. In most of the cases of hæmorrhage I have noticed a fall of temperature, at some time during the twenty-four or thirty-six hours preceding its appearance, externally. Some of our patients seem to mend rapidly after a single hæmorrhage, but, when oft-repeated and large, they tend to debilitate the patient, and finally death may ensue from exhaustion. There is nothing noteworthy in the behavior of the hæmorrhage, and we pass to the consideration of the question of malarial influence on our forms of typhoid. To me it does not seem possible that a patient who has typhoid germs floating in his blood can not modify the symptoms arising from that condition by the admixture of malarial poison. I have thought that our typhoids were markedly influenced by a malarial element, and am now positively convinced by clinical experience. Often we are called to attend patients with typhoid who have gone safely through all the stages of the disease, each stage marked by characteristic periodicity. After convalescence has commenced, and our patients are doing nicely, we find them suddenly with severe chill, elevation of temperature, profuse perspiration and exhaustion following. This condition, if not treated, is likely to recur at a corresponding hour in the course of a few days. Quinine, liberally administered, is sufficient to overcome this trouble. If you will study

the temperature-charts closely you will find that in numerous cases the temperature is higher at periods of the disease every other day; again you will find sudden and irregular elevations of temperature, with profuse perspiration. These patients have the roseolar eruption, some of them are accompanied with active delirium, and some have profuse intestinal hæmorrhages. Though the typhoid germs are in the ascendancy, the malarial element makes a profound impression, and influences materially the symptoms and course of the disease. Many of our cases begin with the symptoms of malarial continued fever, but before many days assume a typhoid type, show abdominal symptoms, and are then true cases of enteric fever. To decide the subject of temperature-curve, I will not longer weary you with detailed histories of cases; but have taken a number of cases from my daily record, and some from the hospital records, all of which have been faithfully kept, and appended them to this paper. I could offer many more charts, but they all show that we have no characteristic temperature-curve for typhoid fever as we see it in central New York.

Are there mild cases of typhoid fever? Does our scientific or any other treatment of these cases abort them? That there have been mild cases in our midst we can not deny. In the mildest the patients in my experience have not been considered convalescent before the end of three weeks, and in some the convalescence has been very slow. Our German *confrères* do not deny the possibility of mild cases of typhoid, and Jürgensen has written an able article describing them in Volkmann's "Klinische Vorträge," No. 61. We can not accept the mere statements of those who tell us that they abort typhoid fever; if we are called to see a case of fever of any kind, and our efforts are rewarded by a fall of temperature and return to normal of the patient,

we can not consider that a case of aborted typhoid. The accurate, skilled, and careful observer will be cautious how he makes a diagnosis of any fever during the first week; and yet some of our friends would have us believe that they have cured their patients before *we* have had time to make a diagnosis.

To make the diagnosis of enteric fever we must be satisfied that there are abdominal lesions; without these there can be no typhoid. During the early days when we are called to see these cases the symptoms are vague; there may or may not have been nose-bleed; we could not say that a patient had typhoid fever because he had nose-bleed and slight febrile disturbance, all of which disappeared after a day or two of most energetic and polypathic medication. Those who abort cases of typhoid must first satisfy us that they have made the proper diagnosis; must instruct us in the manner of making such diagnosis, by pointing out the features of their cases which lead them to its early recognition and ultimate abortion.

In conclusion, I would say that it has not been my object in this paper to mention all the symptoms of typhoid fever; but it has been my endeavor to attempt at least to decide, by a careful examination of my records, a few points which seem to have puzzled and upset us for some time past in the discussion of the subject under consideration. I think I am safe in concluding that we do not have as a rule in our cases of typhoid fever a schematic temperature-curve, that they are markedly influenced by a malarial element, and, finally, that we are only justified in making the diagnosis of typhoid fever after a careful examination of the patient, noting each and every symptom, including thermometric measurements daily for at least seven days, the abdominal symptoms, roseola, ileo-cæcal tenderness, epistaxis, and then, by the coupling of all

these symptoms and a careful consideration of each, a diagnosis can be made.

DISCUSSION.

Dr. HIGGINS: Mr. President, I can not feel at liberty to let this paper pass without saying a few words and giving my testimony to the faithfulness of Dr. Elsner's description of typhoid fever as we meet with it in this vicinity. And, after a practice of thirty-five years in an intensely malarial region, I am more and more impressed that we have few cases of disease of any character that are not to some degree influenced by malaria. The point he made I have often observed, of the malaria manifesting itself after having passed the patient through that stage which I supposed placed him beyond the need of my care. In these cases distinct chills with marked regularity, requiring active and decided anti-periodic treatment for their suppression, were the main feature of what is often called relapse. I should say, however, that these cases were generally of that class that were allowed to go on from eight to ten days at the outset without active treatment, the most important period to modify the disease.

I look upon the paper as one of the most valuable and interesting I have ever heard upon this type of fever, and it interests me greatly from the fact that in this long period to which I have alluded our fevers have very much changed in character. We do not have now, as we did thirty years ago, those positive characteristics that definitely settled the question as to their nature. We do not find even those marked and distinct cases of old-fashioned "fever and ague." We find more prostration with a commingling of types belonging to different classes. Those fevers that were termed "bilious remittent" have disappeared, or at least the name has, and the word "typhoid" has the ascendancy over all others. I find very little true typhoid fever in the vicinity in which I practice, and that, almost without exception, masked by this subtle agency. In fact, I find so much of this malarial character that I am very cautious how I use the word "typhoid," and cases of that type often require many days to distinguish their true character. But with reference

to abdominal lesions, those cases that develop that form of complaint, there can of course be no question. But what I wished to speak of particularly were those peculiarly malarial influences mingling with almost every disease which comes under my notice, and that too in all seasons of the year.

I simply arose, Mr. President, to make my acknowledgments to my friend, Dr. Elsner, personally, for this very able paper, it being so faithful a delineation of the disease as it has come under my observation, and being a subject of great public as well as professional interest.

Dr. Ross: I am very much interested in the doctor's paper; and while it seems that the type of typhoid fever mentioned by him is somewhat different from that which I am accustomed to see, I think, at least in half our cases, we have a *comparatively* typical run. There was another fact brought out by the doctor which is present in almost every case—that of roseola being found between the seventh and eighth days. Almost all of my cases have been between the eighth and twelfth days. Another thing: after an extremely high temperature, often running as high as 104° at the outset, and a pulse of 110 to 130 during the first twenty-four or forty-eight hours, the temperature will drop, then gradually rise, continuing as in a well-behaved case of typhoid fever.

A great many patients, as we see them, have constipation—perhaps one third; some are so much constipated that we are obliged at times to remove portions of hardened fæcal matter from the rectum with the finger; the tongue usually assumes a comparatively typical form.

In regard to aborting cases, I have seen cases begin with every symptom of typhoid fever—epistaxis, diarrhœa, tympanites, tender abdomen, and delirium, with a gradual rise of temperature for five or six days; then suddenly, whether due to treatment or to the natural termination of the disease, the fever drops to normal, other symptoms subside, and the patient is out within a week or ten days.

I had such a case not more than a month ago—that of a physician who resided in this city and was in the hospital here, I believe. He left the hospital and went into the country, where

they were having, or had recently had, typhoid fever. He came home to Elmira and remained a few days, intending to go to an adjoining town to practice. The day before his intended start he was taken with every symptom of beginning typhoid fever. He had epistaxis, tympanites, delirium, diarrhœa, and a gradual rise of temperature for about five days, followed by a gradual abatement of all the symptoms.

Within seven or eight days he was out and about the house. I have seen such cases again and again, especially when we have had a large number of typhoid fever patients on hand.

Now, whether these are cases of *simple* fever or cases of aborted *typhoid* fever I am not prepared to say; the thought often comes to me that they *might* be, and there are good, well-read practitioners who believe this to be possible.

Of course we have no authority for expecting to abort a case of typhoid fever; neither do I wish to be considered as advocating such a theory. I would like to hear on this point the opinion of other members of the association.

Dr. Brown: My idea of typhoid fever is somewhat different from that of the last speaker. I believe that typhoid fever, strictly speaking, is a specific poison; that it starts out as typhoid fever, and I have contended that the idea of breaking up typhoid fever is simply ridiculous.

I believe when it is typhoid fever it is typhoid fever from the commencement; I believe that it is typhoid fever throughout; I believe if it commences as typhoid fever it will run a course as typhoid fever, and, according to my experience in a large number of cases connected with a school in Pennsylvania several years ago, and published in the journals, where the infection was caused by drinking-water. There were sixty-two persons taken sick within three weeks. The shortest duration of the fever was thirty days, and they ranged from that to forty and forty-five days. A large majority had hæmorrhage from the bowels and the cases were typical cases of typhoid fever. There were a few persons about the building and in that vicinity, who did not drink the water, who did not have the fever, but all that drank it had the fever. It was found that the drinking-water that they used was from a well that

was about forty feet from a privy-vault that had been used for ten years. We found that the contents of the privy-vault had backed around into the well. The water tasted good and had the appearance of being good water. At the place there was an Artesian well that was one hundred and forty feet deep carried into the building, but the students and some of the teachers liked the surface well so much better that they would go out from their rooms and down to this well to get the water because they liked it. The deep well was, of course, all right. I sent samples of this water to Dr. Lattimer, of Rochester University, and he examined it and reported that it was swarming with animalcula; and so I believe that the large majority of cases of typhoid are the result of drinking water that is contaminated by sewage and bad air, and that in these cases of direct infection of typhoid fever there is no such thing as aborting them. These cases of continued fever spoken of I should regard as a different disease from true typhoid fever.

Dr. BLOOMER.—MR. PRESIDENT AND GENTLEMEN: If this meeting had been held a year ago Dr. Chapin would probably have been here; and if he had been here he would have, no doubt, called attention to certain mental manifestations present in cases of typhoid fever.

There is no doubt that about the third week of typhoid fever there is a mental condition short of delirium, where the patient is restless, apathetic, indifferent to his surroundings, when the question of testamentary capacity often comes up. Dr. Chapin related last year two cases published in the "American Journal of Insanity."

In one of his cases the patient, fifty-eight years old, a farmer, lying at the point of death, called his sons to his bedside and discharged some obligations to the amount of $6,000 or $8,000. He recovered from the fever; and a year afterward his sons were very much surprised by his asking them to have this obligation discharged; and he himself was quite confounded when he learned that the instrument had already been executed.

In another case the patient made a will in which he ignored

the heirs in the male line, and his signature bore such a striking resemblance to that of the lawyer who guided the pen that there was a contest over the will. The late Dr. Cook and Dr. Chapin were called in as experts, who testified that in their opinion the patient was *non compos mentis*, and not in a disposing state of mind when he made the will; but the will was, notwithstanding, admitted to probate because it was executed in due legal form; and you all know what objections lawyers raise to the setting aside of an instrument that is executed according to the legal requirements.

Dr. ELSNER: I merely wish to say that possibly the title, as it appears on the programme, is a misnomer.

The cases that I have described to you on paper have been seen in this county, and my experience with typhoid fever has been limited to this county. We consider ourselves in central New York, and, as I had no better name or title to give the paper, I gave it the title that appears on the programme.

Now, in regard to roseola. I think that you will find, in looking over the temperature-chart (for I have been particular in marking the roseola), that it did usually occur between the seventh and eighth day.

Then in regard to the abortive cases, and such cases as Dr. Ross mentioned. We all see them.

We are all called to treat just such cases as the doctor has mentioned. Some of the patients have active delirium at once, and some do not. We have a gradual rise of temperature, and, for a few days, imagine that we have a well-defined case of typhoid to treat; but our treatment is rewarded with success. Now, those cases can not be considered typhoid fever. One of the points that I wish to make in my paper is this: That we are not justified in making the diagnosis of typhoid fever unless we are sure that there are abdominal lesions. The tenderness in such a case may be caused by many other things. Typhoid ulceration may cause tenderness; ulceration in the region of the valve may cause it, and many other diseases that are not typhoid at all are associated with marked abdominal disturbance, yet can not be considered cases of typhoid fever. If we speak of abort-

ing typhoid fever, such cases must be thrown out. We can not consider those as aborting cases of typhoid.

In regard to the mental state. I did not mention that in my paper, for I simply wish to impress upon your mind the leading symptoms of typhoid as we see it.

Dr. Bloomer has mentioned the mental state in some cases between the second and third week—that apathetic condition, that condition when the patient does not care whether school keeps or not. I think the much larger proportion of our patients are just in that very condition at that stage of the disease. The patient seems to lose all interest in himself or herself, however solicitous he or she may have been before; and I think there is a stage in typhoid, though I would not make this as a positive statement, at which these patients are not responsible for what they do, however clear they may have been during the entire course of the disease. I have repeatedly asked patients who have appeared perfectly rational throughout the entire course of the disease whether they remembered any facts concerning their sickness; much the larger proportion of them have told me that the time during the entire sickness seemed as if it had been a dream.