

Porter (P. B.)

80 over
last
20

[Reprinted from THE AMERICAN JOURNAL OF OBSTETRICS for January, 1881.]

A COMPLICATED CASE:

REMITTENT FEVER WITH JAUNDICE AND PROBABLE HEPATITIS; CONVULSIONS; HEMIPLEGIA; TYPHOID FEVER; OCCURRING IN A RACHITICAL CHILD.

BY

P. BRYNBERG PORTER, M.A., M.D.,

Physician for Diseases of Children at the Demilt Dispensary, and late Attending Physician to the N. Y. Free Dispensary for Sick Children.

I HAVE thought it worth while to publish the following case, because it has seemed to me of unusual interest, not less on account of its complicated nature than of the extraordinary vitality exhibited by the patient under, apparently, the most adverse circumstances. My only regret in connection with it is that the record is not more complete, and especially that no autopsy could be obtained.

The child first came under my notice in November, 1876, at the Demilt Dispensary, and its early history is recorded with some detail in the clinical reports of the dispensary formerly published in the *New York Medical Journal*.¹ The family were Cubans, and when first brought to me the child was three months and a half old. In Cuba, as in all tropical countries, I believe disorders of the liver, and especially those of a serious nature, are much more common than in this latitude; and I find, on inquiring into the history of this family, that the uncle and brother of the child's mother both suffered from hepatic abscess (an operation having been performed with success in the case of the latter); while the father, during a sojourn in Fernando Po, an island with an intensely hot climate off the western coast of Africa, had contracted malarial fever which was accompanied by grave disorder of the liver. It would seem, therefore, that there was an hereditary tendency to hepatic trouble in the case, in addition to the tendency to enlargement of the liver which is so frequently met with in rachitical children.

When I saw the child first, it was a very puny and poorly-developed infant; the skin and conjunctiva were deeply icterosed, the color being dark enough to approach that which is seen in what is known as "black jaundice." The mother appeared to be

¹See the *New York Medical Journal* for November, 1877.

LIBRARY
SURGEON GENERAL'S OFFICE
JUL.-30-1898
609.

very feeble and anemic, and said she had been in extremely poor health before the birth of the child. For several years she suffered great mental anxiety on account of the exile of her husband from Cuba, and the confiscation of his property in consequence of his hostility to the Spanish government, which had left the family in poverty. She had had five children previous to this one. The two eldest, who had been born before the reverse in her fortunes, were living and in good health, but the last three were dead. They had all been weakly children, and two had been carried off in early infancy by diarrheal disease, while the third had died of whooping-cough, complicated with pneumonia, at the age of two years.

The jaundiced condition, the mother stated, was seen at birth, and had continued uninterruptedly from that time on. The child had been artificially fed from the first, and had been given a great deal of starchy food. It was, naturally, very fretful and worrisome, appearing to be almost constantly in pain; it slept but little, and for some time previously it had been suffering from diarrhea. The urine was of a deep yellow color, and the feces light-colored. From the continuance of the yellow discoloration from birth, as well as the markedly cachectic appearance of the child, I concluded the case to be one of some congenital deficiency of the biliary ducts—a condition which, according to West and other authorities, is fatal, though life may be prolonged for a few months. I, therefore, gave a very unfavorable prognosis, and prescribed only some simple remedy for the diarrhea, which was evidently increasing the infant's weakness, though adding advice as to the proper method of feeding, and also ordering brandy in small doses.

By the end of a fortnight the diarrhea had disappeared, and the general condition of the child seemed slightly improved, though there was no perceptible difference in the jaundiced appearance. I now commenced a course of alkaline treatment, with the idea that there might possibly be no congenital malformation, as I had supposed, and feeling assured, at all events, that it could do no harm. In a month more there was found to be some change, though not very marked, in the yellow discoloration, and this improvement was more noticeable in the conjunctiva than in the skin, on account of the naturally dark and sallow complexion of the child. In the mean while, there had been occasional diarrhea, and the stools had sometimes been green; but there had been, on the whole, a very gratifying improvement in the general condition.

By the expiration of another month, the jaundice had improved very greatly, although marks of its presence were still quite noticeable. Evidences of rachitis, however, were now beginning to appear. The head perspired a great deal during sleep, the hair was becoming worn from the occiput by the burrowing of the latter into the pillow, there was some bronchial catarrh, the lifting of the child by the hands upon the chest-walls seemed to occasion pain, and the bowels continued in an irritable condition, some-

times being relaxed, and sometimes costive. Consequently I now prescribed cod-liver oil, with syrup of iodide of iron, and ordered such hygienic measures as seemed appropriate under the circumstances. By the early part of February (three months after the child had first been seen), all vestiges of the jaundice had disappeared.

A considerable portion of the above history is taken from that published in the "Clinical Reports of the Demilt Dispensary," to which allusion has been made; and I have thought it well to present this condensed record of the early months, first, on account of its probable connection with the subsequent history of the case, and secondly, in order that it might be made evident what a poor start in life the little patient really had. The last note given in the above account is the following:

"September 26th, 1877.—The child has been seen from time to time during the interval that has elapsed since the date of the last note (Feb. 10th), and there has been no return whatever of the jaundice. The rachitis, however, has continued to progress in spite of the treatment. . . . It is now thirteen months old, and has six teeth, which it began to cut late. The first teeth to protrude were the upper middle incisors, and this is a sign of rachitis, to which, I believe, Dr. A. Jacobi was the first to call attention. . . . In addition, we find the square head, with prominent forehead, the wide-open anterior fontanelle, the chicken-breast, the beaded ribs, and the enlarged extremities of the long bones so characteristic of the rachitical diathesis."

From the date of this note, down to the time of the last illness of the child, I have preserved no regular record of the case; and this is, perhaps, not to be regretted, as its recital would probably be of but little interest.

During this interval of nearly two years and a half, the child entirely escaped all the infectious and exanthematous diseases incident to early life, but suffered to a considerable extent from bronchitis; while occasionally he would have an attack of pneumonia, such as we so frequently find occurring in these rachitical children. Once or twice also, if I remember rightly, he had some return of jaundice; but this was not severe, and did not seem to interfere to any extent with his health. He continued to take the cod-liver oil and iron, intermitting it from time to time for a longer or shorter period, and increased very considerably in strength, though his growth was comparatively slow, and the evidences of rachitis yet remained very perceptible. Thus, at the time of his death, the anterior fontanelle was still quite widely

open, although he was then nearly four years old. In November, 1879, he had a rather sharp attack of apparently malarial fever, which was accompanied by some icterus, and which was controlled by the use of quinine. After that I saw him but once (in February last) before the onset of the troubles which terminated his life. As far as I can recall, he was then free from jaundice; but, as was before remarked, his color was naturally so sallow (which was, indeed, the case to a greater or less extent with all the members of the family), that, if it was but slight, it might possibly have escaped my notice.

On the afternoon of the 11th of April last, I was sent for in haste to see the child, but, being away from home at the time, I did not reach the house until about ten o'clock at night, another physician having in the mean while been summoned. I found the patient in an unconscious state, with the pupils moderately dilated, and learned that he had had convulsions for several hours, which, it was stated, affected exclusively or principally the right side of the face and the right upper and lower extremity. The physician who had been called in had left before my arrival, and when he did so, had expressed the opinion that the child would not live through the night. He undoubtedly had an almost moribund appearance, and the prognosis certainly did not seem very favorable; but, finding that he was able to swallow anything in the way of liquid that was given him with care, I ventured to say that I thought it possible that he might survive the immediate attack, though his ultimate chances of recovery were very bad. The parents informed me that for some little time past he had been growing more and more jaundiced, the discoloration of his urine being of late particularly marked, and that he seemed at times to have considerable pain. The treatment ordered that night consisted principally of bromide of potassium, with a certain amount of alcoholic stimulus, which seemed strongly indicated by the extreme depression of the patient.

The next day I found him perfectly conscious, and considerably improved in other respects; but I now discovered that there was almost complete paralysis of motion, with partial paralysis of sensation in the right upper and lower extremities, though there was no appreciable facial paralysis. By daylight, the jaundice was very apparent. There was also considerable fever, and I found, on making a physical examination, that there was marked enlargement of the liver, with slight tenderness on palpation. There was no appreciable diminution in the secretion of urine, which was very high-colored, staining the linen a deep-yellow. At no time during the child's illness did the urine contain albumen.

Suffice it to say that for the next month the child remained in much the same general condition, the jaundice and local evidences of trouble about the liver continuing, while the fever, which was apparently never altogether absent, varied in intensity from time to time. There was, however, gradual but steady improvement in the paralysis during this time.

Soon after the first of May, I noticed a considerable increase in

the febrile action, in spite of the use of quinine and other agents employed to control it. I regarded the case as one of remittent fever, with engorgement and probable inflammation of the liver; and, fearing a fatal termination, on the 13th of May I called my friend Dr. B. F. Dawson in consultation. It was 5 P.M. on that day when we saw the child together, and the temperature was then $103\frac{1}{2}^{\circ}$. When we came to make an examination of the abdomen, a distinct eruption of rose-colored spots, which disappeared on pressure, was discovered, and the diagnosis of typhoid fever was made. This exanthem was evidently of very recent origin, since I had constantly exposed the abdomen in making examinations of the liver, and for the purpose of frequently applying cantharidal collodion to various parts of the hepatic region. There was found to be slight enlargement of the spleen and some tympanites; but there was no tenderness or gurgling on pressure in the right iliac region. During the last twenty-four hours the countenance had assumed quite a decided typhoid expression, and there was now present a certain amount of mental hebetude, which had not previously been noticed. The tongue, which had all along been heavily coated, was more dry than at any time during the illness, and the teeth, as for some time previously, were covered with sordes. There was and had been no diarrhea whatever; but it is now quite generally recognized that the symptoms of typhoid are, as a rule, much less pronounced and more irregular in children than in adults. Dr. Dawson advised that quinine should be given in ten-grain doses, and this failing to reduce the temperature sufficiently, that the cold pack should be resorted to. He also suggested that mercurial inunction should be practised over the hepatic region. The prognosis was regarded as very unfavorable, and it was thought advisable that the free use of alcoholic stimulus, which I had been employing for some time, should be maintained.

Before leaving the house, I ordered that ten grains of quinine should be given at once (the child had previously had ten grains, in two doses, during the day), and on calling again at 10 P.M., I found that the temperature had been reduced to 103° , a fall of half a degree.

When I came the next morning (May 14th), the temperature was 104° , notwithstanding the fact that ten grains of quinine had been taken, and I at once had the child wrapped from its axillæ to its groins in a cloth long enough to go around the body several times, which was saturated with cold water. He was at first somewhat alarmed, but afterwards rested very quietly in the pack, which seemed to afford him no little comfort. At the end of half an hour, the temperature was found to have fallen to 102° , and the cloth was removed. I ordered the quinine continued at the rate of ten grains morning and evening, and that another cold pack should be given the next day, previous to my visit.

On the 15th, I called about 2 P.M., and found the temperature to be $101\frac{1}{2}^{\circ}$; the quinine and pack having been given in the morning as directed. The general condition of the patient was

now apparently better than two days before, when the consultation was held. There was no difference noticed in the hepatic symptoms, but the child was decidedly brighter, and even seemed inclined to play a little.

On Sunday, the 16th, no pack had been given up to the time of my visit (though the quinine had been administered), and I found the temperature 103° , and the condition less favorable than on the day before. The pack was at once ordered, but I could not remain to note its effect.

On the 17th, I did not get time to call until 5.30 P.M., when I found the temperature had reached 105° . The quinine had been given as usual that day, and a cold pack also at 10 A.M. As the fever was so high, I ordered that two packs should be given that evening; but afterwards learned that on account of the child's being asleep, the second one was not resorted to.

May 18th, at 2 P.M., I found the temperature 103° . The child had had one pack at 10 A.M., and I ordered two more during the day. The record of the 19th is precisely the same.

At 3 P.M., on the 20th, the temperature was $103\frac{1}{2}^{\circ}$. At that time the child had had two packs that day, the last at 1 P.M., and I ordered two more during the afternoon and evening.

At the same hour on the 21st, the temperature was 104° , after two packs had been given, and I ordered three more to be given that day. It will be perceived that the packs had apparently less effect in reducing the temperature than when their use was commenced; and the whole condition of the child, it may be stated, was very unfavorable, though there was still no diarrhea.

On the 22d, at 2 P.M., however, I found the temperature $101\frac{1}{2}^{\circ}$, after two packs had been given, the last at noon; I ordered one more in the afternoon, and in case the fever ran high again, an additional one later.

May 23d, 3 P.M.—Temperature 103° . The child had had two packs, and I ordered two more, the last to be continued for three-quarters of an hour if the fever was very high. As he had now begun to vomit the quinine which he took at night, I advised that the second dose should be discontinued, but that the ten grains in the morning should be kept up.

During the next four days I never found the temperature less than 103° , although the child was constantly receiving five cold packs a day, and on the 25th, at 2 P.M., it was $103\frac{1}{2}^{\circ}$. Notwithstanding the continued high temperature, however, the strength of the little patient seemed to hold out in the most astonishing manner, and the general condition did not now seem appreciably worse than it had been for some time previously. It must be borne in mind, however, that the stimulant was pressed to the full extent that it could be tolerated.

On Friday, May 28th, I was not able to call until 6 P.M., and I then found that, although three cold packs had been given during the day, the thermometer indicated the high point of $104\frac{1}{2}^{\circ}$. Fearing a return of the convulsions if the temperature remained thus elevated, I at once ordered the child placed in a cold bath

for fifteen minutes, and that later in the evening another cold pack should be given. He was still taking ten grains of quinine a day, but, at this time, five grains were being given in the morning and five at night.

It was 2 P.M. when I saw the patient the next day, and, although one cold bath and one pack had already been employed, upon my arrival the temperature stood at the alarming figure of $105\frac{1}{2}^{\circ}$. The case seemed altogether hopeless; but I ordered twenty grains of quinine and a cold bath, to be followed by two or three cold packs later. The next day (May 30th), the patient was in a cold pack at the time I called, and the temperature was 104° .

At 2 P.M. on May 31st, Dr. Dawson again saw the child in consultation with me, and we now found the temperature to be 106° . Since the increase in the temperature noticed on the 28th, I had been thinking that an exploratory puncture ought to be made in the liver, as it seemed to me that, although no sense of fluctuation could be obtained on palpation, there might be a collection of pus in the organ, which at least served to aggravate the febrile symptoms, and it was principally to have his opinion as to advisability of the procedure that I had called in Dr. Dawson the second time. Accordingly we were prepared to aspirate in case any pus should be detected. The condition of the liver, so far as it was appreciable by external physical exploration, had not changed materially since the date when this was described. It was perhaps slightly larger and a little more bulging in outline; but there was apparently no greater tenderness on pressure over it. Selecting the most protuberant point on the surface, which was about three or four inches from the umbilicus, we inserted the needle of a hypodermic syringe into the substance of the liver for an inch or more, but did not succeed in withdrawing the slightest quantity of pus, nor was there any trace of pus whatever on the point of the needle when it was removed. Counter-irritation was ordered to be made by two blisters over the hepatic region, and the cold baths and packs to be kept up as before. In addition to the other treatment, I prescribed three drops of tincture of aconite three times a day.

June 1st, 1.30 P.M.—The child has had convulsions since 7 A.M. to-day, but these are less severe than before, and confined to the left instead of the right side. The mouth is slightly drawn, and the pupils are quite dilated. The patient swallows with difficulty. He is partially conscious, but his utterances are unintelligible. The temperature being 105° , I ordered him to be kept in a cold pack continually. Five grains of bromide of potassium were to be given every hour, and later every three hours. To-day the mother informs me that he has had several slight hemorrhages from the bowels of late.

June 2d, 10.30 A.M.—The convulsions finally ceased at seven last evening, after continuing at varying intervals for twelve hours. The child has been kept constantly in a pack since my last visit, and the bromide of potassium and aconite have been

kept up as ordered. The temperature is 103° . The child is rational, but very weak, and the extremities are cool. There is now some diarrhoea, and during my visit he had a passage which was of a light-brown color, but not very thin in consistence. No blood has been passed by the bowels since yesterday. Instead of the quinine, which was taken steadily up to the time of the convulsions, I now ordered five grains of salicylate of soda three times a day, the dose afterwards to be increased to ten grains.

June 3d, 10 A.M.—Temperature 102° . The child is sleeping quietly and naturally, and is evidently better. He has had only one evacuation of the bowels since yesterday, and the urine is lighter in color than before. There has been no return of the convulsions.

June 4th, 10 A.M.—Temperature 103° . The child appears a little inclined to coma. He can readily be aroused, but the greater part of the time seems very heavy. The next day at 2 P.M. the temperature was 102° , but in all other respects the condition was very much the same. The day following (June 6th) I was obliged to be out of town and did not see him.

June 7th.—Temperature 103° . There is even a more marked tendency to coma, the child remaining only semi-conscious, although he can still be roused without difficulty. Since yesterday a decided prominence, of quite a firm and resisting nature, had appeared just between the umbilical and left hypochondriac regions, and this I concluded to be due to a curious contraction of the abdominal muscles, which did not, however, seem to be accompanied by any special pain. There is also more tympanites than has before been noticeable. During my visit the patient had a passage, which was yellowish-white, very firm in consistence, and tinged with blood. This was the first time that the bowels had been moved since yesterday.

June 8th, 2 P.M.—Although the temperature is 104° to-day, the expression of the countenance is much more animated, and there is apparently no stupor whatever remaining. In consequence of the high temperature I ordered frequent spongings in addition to the frequent cold pack, the cloths to be changed every half-hour.

June 9th, 10 A.M.—Temperature $100\frac{1}{2}^{\circ}$, the lowest point reached since the attack commenced. The mother reports that there was high fever during the night, and that there was a glassy look about the child's eyes early this morning, but the expression of the latter is perfectly natural now. The passages are of a decidedly more yellow hue, and are sometimes a little loose.

June 10th, 7 A.M.—The general condition much the same. The bowels are not now loose (there being only one or two passages a day), and the color remains quite yellow. Yesterday after my visit, the child vomited a considerable quantity of dark-colored fluid, which seemed to be blood, and shortly afterwards a smaller amount of the same. Still later he had another slight attack of vomiting, but the matters vomited were of a light color. The evacuations from the bowels were also slightly tinged with

DR. A. E. FOOTE

MINERALS AND BOOKS

MEDICAL, AGRICULTURAL, HORTICULTURAL, EDUCATIONAL, ETC.

1317 ARCH STREET

PHILADELPHIA, PENNA., U. S. A.

PLEASE RETURN THIS SLIP, WHETHER THE ARTICLE IS WANTED OR NOT,
AND SAVE US TROUBLE AND EXPENSE

Porter O. Brynberg

Complicated Case: Remittent Fever with
Jaundice + Probable Hepatitis; Convulsions,
Hemiplegia; Typhoid Fever; occurring
in a Pechital Child. 12 pp. 8vo. pap.

~~1887~~, 1897.

20¢



THE UNIVERSITY OF CHICAGO PRESS
54 EAST LAUREL STREET, CHICAGO, ILL. 60607

DE A. B. ROOTS

1011 SOUTH STATE STREET
CHICAGO, ILL. 60605

[Faint, illegible handwritten text, likely bleed-through from the reverse side of the page.]

blood. The abdomen still continues tympanitic, though the prominence mentioned has disappeared, and the patient seems to suffer considerable pain in the region of the liver, spleen, and kidneys.

Saturday, June 12th, 6 P.M.—Temperature $103\frac{1}{2}^{\circ}$. The patient seems weaker, and emaciation is more marked than before. There has been no return of the vomiting, and the condition is otherwise unchanged. Ordered poultices, sprinkled with laudanum, which had previously been employed to some extent, to be again applied over the hepatic region, and twenty grains (instead of ten) of salicylate of soda to be given in the morning.

June 13th, 9.30 A.M.—Temperature 104° . Just before my arrival there were indications of approaching convulsions, such as great restlessness and nervous twitchings, but these promptly disappeared when the child was freely sponged with cold water. I ordered that he should be kept constantly in a wet pack, that cold spongings should be given every half-hour, and, in addition, two or three cold baths, of fifteen minutes each, through the day, if the fever continued high.

June 14th, 12 M.—Was gratified to find that the temperature had fallen to 100° , and that the patient had improved in every way. Only one cold bath was given yesterday, and none at all to-day as yet. Twenty grains of salicylate of soda were taken this morning. The liver is appreciably less hard on palpation than for some time past, and the bowels are of a more decided yellow, while the urine is not so deeply colored as before. The same is true of the conjunctiva. The expression of the eyes and the whole countenance is much brighter and more natural than has been the case for a very considerable period. There is no diarrhoea (the child averaging two passages a day), and no more blood has been passed.

June 15th, 2 P.M.—Temperature $102\frac{1}{2}$. With the exception of the increased temperature, the patient does not seem any worse than yesterday, and looks quite bright and comfortable. Last evening, however, he passed blood twice by the bowels, the first time a considerable quantity, and the second time but little. He has also passed a little blood by the bowels to-day.

Wednesday, June 16th, 6 P.M.—Temperature $100\frac{1}{2}$. I had been summoned early this morning, but did not receive the message, and could not get time to call until evening. Now find a very marked change in the patient. This morning at three, the mother informs me, he awoke with a wild scream. After that he was seized with spasms, which continued to a greater or less extent all day. When they occurred, there would be marked rigidity of the limbs (not confined to one side of the body), and the eyes would open to their utmost extent, with dilated pupils and a fixed glare, but there were no clonic convulsions. Sometimes internal strabismus would be noticed. When I first saw him he appeared to be in a death-like stupor, and looked as if he might expire at any moment. The eyelids were nearly closed, the pulse feeble and frequent, and respiration very quiet. During my visit he was

seized with one of the spasms just described, and for a short time there was strabismus, and the countenance altogether presented a ghastly and horrible spectacle. In a few minutes, however, he relapsed into the quiescent state in which I found him on my arrival. He was still able to swallow slowly, but I did not think that he could possibly live through the night. All day the mother had been giving him five grains of bromide of potassium, in accordance with directions which I had previously left in case of the recurrence of convulsions at any time. I ordered brandy and milk, and brandy and beef-tea, in small quantities, alternately every few minutes, and that a hot bath should be given instantly in case any violent convulsion came on.

June 17th, 10 A.M.—The temperature has gone down to $99\frac{1}{2}^{\circ}$. Learned that after my visit last evening the spasms gradually became less and less frequent. This morning find him lying in a condition of stupor, though there is no stertorous or labored respiration. Occasionally there is a little momentary stiffening of the arms and legs, but that is all. The child is still able to swallow slowly. In addition to the supporting treatment, ordered a hot mustard foot-bath, the wet pack and spongings having been discontinued on account of the low temperature.

2 P.M.—The temperature has now increased to 103° , and, consequently, the packs and spongings are resumed. Otherwise the patient is in the same condition as in the morning. He has had two passages to-day, one light-colored and the other very dark, somewhat loose, and very offensive in odor.

June 18th, 10 A.M.—Temperature $100\frac{1}{4}^{\circ}$. The general condition much the same as yesterday, although the expression is much less death-like. The eyes remain nearly closed, and he lies very quietly; breathing easily and slowly. I ordered four hot mustard foot-baths to be given during the day, and a blister behind each ear, to be kept on for six hours, if necessary to induce vesification.

5.30 P.M.—Temperature the same. The semi-comatose condition still continues, though the patient seems to have rather more sensibility than before. Thus, he evidently felt the pain when the blisters were removed. The serum from the blisters, both of which drew well, contained coloring matter of the bile, like the urine, and was a deep yellow. He has had several evacuations of the bowels to-day, rather loose and very dark and offensive. There has been no blood in the passages.

June 19th, 2 P.M.—Temperature $101\frac{1}{2}^{\circ}$. The patient lies in a deep stupor; and the eyes, which remain nearly closed, are filmy and lifeless. He has had one or two dark and offensive passages to-day. As he was now almost totally unable to swallow, I ordered a small enema of brandy with beef-tea or milk to be given every half-hour.

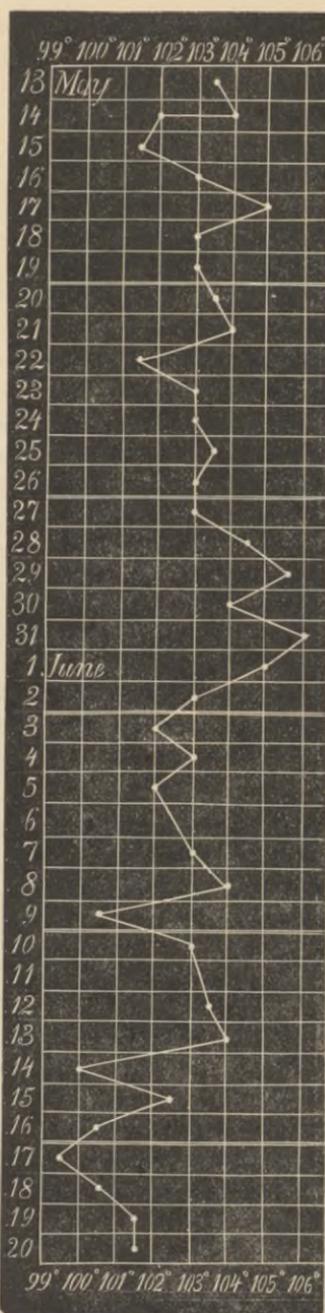
June 20th, 10 A.M.—Temperature $104\frac{1}{4}^{\circ}$. He is able to swallow again, and has taken several wineglassfuls of milk and beef-tea with brandy, so that the enemata have been given less fre-

quently. Otherwise, the condition continues much the same, and I notice an ominous rattling of mucus in the trachea.

June 21st.—The patient died quietly at twenty minutes past four this morning.

I fear that the above account may seem tedious to many, but the case was one of such great interest to me in several respects that I have felt justified in recording the details which I have. One of the most remarkable features about it was the high temperature which persisted so long in spite of all the measures that were adopted to control it. By a reference to the accompanying chart its course can be seen at a glance; and it will be noticed that up to the last week of life it was seldom below 103° .

Yet in spite of this continued high febrile action, the child lived on; and when the antecedent history of the case and the nature and gravity of its other features are taken into consideration, I think it will be admitted by all that the vitality of this rachitic and apparently extremely feeble child was something very unusual. To me it presented the most extraordinary instance of tenacity of life that I have ever met with. Several times during the course of the illness, as has been seen, the patient was actually moribund; and yet on each occasion this constitution, which from infancy had seemed so exceed-



ingly delicate, rallied in the most astonishing manner. How the child continued to live under such a complication of troubles, any one of which would have seemed sufficient to destroy life in a brief time, was a continual source of wonder to me during the progress of the case.

Whether the severe convulsions which occurred on three occasions during the child's illness were due to cholesteremia resulting from the jaundice present, the continued high temperature, or to some other less obvious cause, may perhaps be open to question. To me it seemed that they were in all probability attributable to the disturbances of equilibrium produced by the fever. One point of great interest in connection with them was the difference in the manifestations of the three attacks; the first two consisting mainly of clonic convulsions, on the first occasion confined for the most part to the right side, and on the second to the left, while in the third they were symmetrical and of a tetanoid character. The paralysis which followed the first attack would seem to indicate that a certain amount of extravasation took place in the brain at that time.

As to the hemorrhages from the bowels which were noted on several occasions, I suppose they might be explained either on the supposition that they were a result of the intestinal lesions of typhoid fever, or that they were due to the engorged condition of the liver. If the dark-colored fluid vomited by the child on one occasion, as mentioned in the record of June 10th, was really blood, the latter would appear to be the more probable explanation; but, of course, it is not impossible that both these causes may have contributed to the hemorrhages.

I am quite aware how incomplete the record of such a case as this must be without an autopsy, but, unfortunately, this was impossible to obtain. The father of the child, when the matter was explained to him, at once recognized the importance of the examination and gave his consent to it; but no amount of persuasion was sufficient to overcome the prejudices of the mother in regard to it.