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A CASE OF INTUSSUSCEPTION.¹

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I WAS first called to see the patient, who was seventy-one years old, on the 29th of June, 1876, and found him suffering from acute pain in the abdomen, with some slight tenderness but no vomiting. Pain was referred to a point two inches below the umbilicus; at this point and to the right and left of it for a distance of two or three inches a tumor could be felt.

Treatment relieved the patient for a short time, but after a few hours the symptoms became so aggravated that Dr. H. A. Martin, of Roxbury, was called in consultation. After the patient began a second time to grow worse there was no doubt but that he was suffering from an obstruction of the bowels. Treatment was directed towards this obstruction and in a few hours completely alleviated this part of his trouble; relief came from stools produced by large enemata of soap-suds, castor-oil, and spirits of turpentine, freely administered, and from copious emesis, the patient vomiting gallons of a reddish-brown liquid in a few hours. He had been feeling poorly for three days before I was first called, having experienced colicky pains, for which he had taken a dose of salts, which had produced a number of loose dejections. After the patient had been relieved from the obstruction, he began to improve under a diet of milk and brandy; this continued until July 9th, when he had a bad day, and complained of cold hands and feet and an undefined feeling as if he were falling to pieces; this was temporary, and he improved until July 16th, sixteen days after his attack, when his pulse and temperature began to increase; this continued until the 21st, the pulse at no time numbering more than eighty beats per minute, and the highest temperature being only 102° F. On the morning of the 21st, three weeks after the commencement of his sickness, the patient passed a portion of his small intestine, which now belongs to the museum of the Harvard Medical School. The length of the intestine passed was 17½ inches; this, however, was only a portion of what came away.²

The specimen was not *inverted* as is usually the case; at its point of

¹ Read before the Norfolk District Medical Society.

² See the results of the post-mortem examination made by Dr. R. H. Fitz, of Boston, February 4, 1877, as appended.

separation it was gangrenous and worm-eaten in appearance ; it also showed traces of the exudation of lymph.

After the passage of the intussuscepted part the patient had a full operation from the bowels. From this time until August 4th, a period of two weeks, he improved, having daily dejections ; his appetite also returned. On this day there was considerable pain in the abdomen, together with such a degree of distention that at one time his breathing was quite seriously interfered with. Dr. Charles B. Porter, of Boston, was at this time called in consultation. On the afternoon of August 4th the patient began to vomit a thick liquid, which appeared to come from the stomach and upper part of the small intestines ; this relieved him. The vomiting, which appeared first at this time, was present more or less during the remainder of his life ; at times it would be suspended for two or three weeks, the longest period being three weeks. It was at intervals excessive, at one time occurring every few minutes for forty-eight hours ; the usual quantity vomited at any one time was about a quart, *six quarts* being ejected during twelve hours. The total amount could have been measured by gallons. That this is true will be seen when I state that the patient vomited sixty-nine times during his sickness. Now to what was this due ? That there was a catarrhal condition of the mucous membrane of the intestine was unmistakable. But what produced this catarrh ? Various explanations have been given, but I accept the following as the most satisfactory : A considerable time before the patient was taken sick there was an accumulation of fæcal matter taking place ; this mass remained in one position until it had distended the part of the intestine it had occupied and formed a sort of pouch, and it was from this pouch, which from pressure lost a great part of its nervous tone, that this fluid came. That this was probably true will be seen from the fact that upon the whole the quantity gradually grew less, this diminution being perhaps because the intestine at this point was little by little contracting its calibre. Dr. S. G. Webber suggested that Bernard had found that cutting off the nervous supply promoted the exudation of fluid in the intestines. He also thought that sloughing or injury of the nerves which supplied the diseased part of the intestine might have the same effect. That the distention was considerable, and the loss of nervous force great, is shown by the fact that large quantities of fluid were ejected every week or two for a period of several months. I will state that for a few days before the patient first began to vomit a peculiar condition of things existed, namely, the abdomen began to swell and he had more or less pain ; but what was more noticeable was the disturbance produced by the movement of the fluid, which could be heard all over the room as it changed from one position to another, making the greatest possible noise as it went.

During the first part of November, Dr. Joseph Stedman, of Jamaica

Plain, who had charge of the patient during my vacation, noticed that when the pouch spoken of was distended by gas the part involved in the pouch appeared to be twisted, showing that it was shortened and probably adherent at certain points to the walls of the peritonæum.¹

The cause of the invagination was probably an accident which happened to the patient some two or three months before he was taken sick. Some of his farm hands were baling hay and he was overseeing the work; they did it in a rather slow and bungling manner, and not as he had seen it done when he was a young man; he accordingly stepped up to the bale, seized a strip of the wood used for baling, and in his quick, powerful way showed them how to do it properly. Shortly after this he felt unwell and commenced to hiccough, and continued to do so for about four days. This was relieved by placing him flat upon his back and administering an anti-spasmodic. I also for a few minutes placed a light book upon the stomach. This seemed to relieve him at once. At this time I noticed that when he was flat upon his back the hiccoughing abated, with a return of the distress when he sat up. After staying in bed for twelve or fifteen hours he became entirely free from the trouble, which did not return until his last sickness.

With this history before us, may we not inquire if we had not a forerunner of what was to come? Flint says "that invagination may transiently appear, giving rise to no symptoms which persist." If this is so, might it not be possible, in view of what took place, that something of this nature happened, but that owing to position the intestine returned to its proper place, to remain there until three months later?

In watching this case, I have been interested in observing how much it has differed from other cases of the same kind, which have been reported, and I have had the thought impressed upon me that it is not always wise to trust to certain prominent symptoms which in books are described as necessary accompaniments of a disease. For instance, we find pain emanating from a fixed point, tenderness of the abdomen, hiccoughing, and vomiting, which Flint mentions as soon becoming, in the early stages, prominent and persisting symptoms, and almost always present. In what particulars is our case instructive? I think all will agree that we should expect to find the most urgent symptoms attending so grave a condition as intussusception, and that if, as in our case, we did not find them, we should be liable in part to forget that it was possible, for obstruction of the bowels is not an unusual occurrence, and intussusception, especially in the adult, is not found in one out of many cases of obstruction.

When my patient was first taken sick his symptoms pointed to obstruction. Intussusception was of course thought of, as were functional colic, acute peritonitis, and obstruction from various causes; as the

¹ See Dr. Fitz's post-mortem examination.]

case progressed the patient was relieved by treatment, and after he began to vomit and pass faecal matter he seemed to be on the high road to health; this was at a time when a most dangerous process was taking place, and that dreaded complication, gangrene, was separating the invaginated portion from the other parts. When I use the term "dreaded" I of course do not mean that gangrene was to be dreaded considering the condition of things which actually existed, — for this was the only way that recovery was possible, — but because such a condition would directly point to the disease from which my patient suffered.

It is to be noticed that no great increase in temperature was present, the thermometer at no time showing a temperature of more than 102° F.

In his anatomical diagnosis, Dr. Fitz mentions an annular stricture. In connection with this annular stricture it may be interesting to notice how the shape and condition of the faeces corresponded with the progress of the constriction. For a time after the accident occurred the character of the patient's dejections was quite natural; then he began to pass faeces of a ribbon shape, flat, and at times some of these ribbon-shaped pieces would be ten to twelve feet long; with this exception the appearance did not change to any noticeable extent for several months, the discharges being as a rule natural; he usually had two or three dejections a day; during the last part of his life he had fewer discharges, and it was noticed that at times the faeces resembled sheep manure, being made up to a great extent of small, hard, round lumps. It was, however, only a short time before his death that he experienced much pain when he went to stool; that he got along so comfortably and had such free discharges appears remarkable, when we consider the smallness of the orifice at the point of constriction, as described by Dr. Fitz.

For about a week before his death he would at times complain of great tenderness and pain in the left groin, at about the point where the constriction was found.

The swelling of the feet and the nephritis referred to by Dr. Fitz did not seem to play any very important part in hastening his end, although it necessarily was a factor; careful examinations of the urine showed nothing very abnormal.

The general condition of the patient for the last few days before his death was as usual, although it was observed that when he had a dejection he either vomited or had some nausea; still he was feeling pretty well, especially on the Sunday previous to his death, which occurred six days later. Nothing of importance occurred for the next three days of this week. On Thursday morning, at about two o'clock, he was seized with severe pain, which was relieved only by repeated injections of morphine; this pain was so severe that it appeared completely to prostrate

him; there was also a return of the vomiting; the pain and vomiting again came on during the afternoon and evening of Thursday, and persisted during the night and the next day; this abated towards the evening of Friday, and for the last forty-eight hours of his life the patient was without pain. He died quietly on the afternoon of Saturday, February 3d, after an illness of over seven months.

The immediate cause of death was probably the extreme exhaustion brought on by this sudden attack of pain and vomiting, although it is doubtful if he could have survived much longer, considering the condition of his intestines.

The treatment during this long period was directed principally to sustaining the strength of the patient, the obstruction having been removed during the early part of his sickness. The complication which troubled us the most was the vomiting, for the relief of which we tried almost everything that had ever been used; that which appeared the most successful was repeated feeding with small quantities of milk and brandy every half hour, as recommended by Dr. Morrill Wyman, of Cambridge, who saw the patient in consultation, the idea being to give the intestine just as little to do at any one time as possible, but yet to sustain the patient. The result was very satisfactory. The drawing for the accompanying cut was made by Dr. Wyman.

I am indebted to Dr. J. B. S. Jackson and Dr. R. H. Fitz for much valuable information in regard to the pathology of this subject, and to the gentlemen I met in consultation for their many practical hints for the conduct of the case.

Autopsy. The autopsy was made fourteen hours after death. Rigor mortis absent; the body anæmic and emaciated; feet slightly swollen; nothing abnormal about the external appearance of the abdomen. Head not opened.

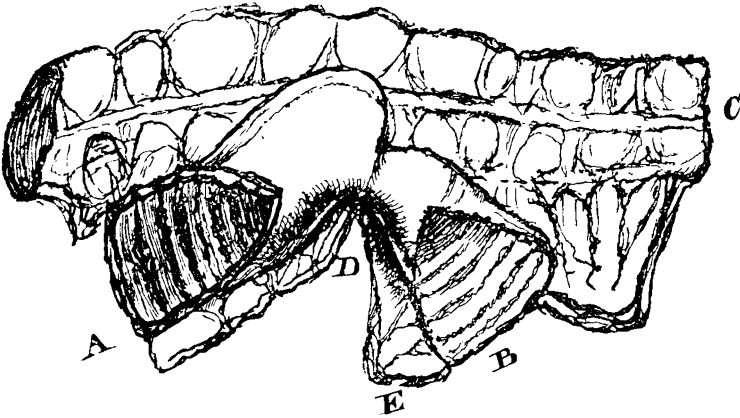
The pericardium contained a few drachms of clear yellow fluid. Heart small; cavities not remarkable; aortic and pulmonary orifices sufficient. The aortic and mitral orifices each presented a single fibrous vegetation, apparently old. The walls of the heart were of a reddish-brown color tinged with yellow, and somewhat opaque. The fibres generally were found to be in a state of fatty degeneration, containing also an abnormal amount of yellow granular pigment. The coronary arteries were healthy and the aorta remarkably free from any changes.

Both lungs were without adhesions, posteriorly œdematous, otherwise not remarkable. Spleen atrophied. The kidneys showed marked granular atrophy from chronic interstitial nephritis. Bladder healthy, prostate moderately enlarged. Liver small, with extensive fatty infiltration.

The abdominal cavity contained several ounces of opaque, yellow, puriform fluid, and the parietal peritonæum was sparsely spotted with

small brown specks, about a line in diameter, apparently old ecchymoses.

In the left lumbar region, beneath a portion of the small intestines, a coil of the ileum was found firmly and closely adherent to the descending colon, three and one third feet from the ileo-cæcal valve and a few



A, upper portion of intestine, enlarged, and walls thickened; B, lower portion of intestine; C, sigmoid flexure of colon to which the intussusception was united; D, point of intussusception; E, portion of mesentery.

inches above the sigmoid flexure. A bridge was thus formed, beneath which lay a portion of the small intestine not presenting any appearance of constriction. The adherent portion of small intestine formed a right angle, the upper arm being moderately distended, terminating in a globular, dilated portion of the volume of a large plum, separated from the lower arm by a constriction, the surface of which was quite opaque, as was the thickened peritoneal coat of the intestine in its vicinity. A portion of the left side of the omentum was adherent to the anterior surface of the constricted portion of the intestine as an elongated band. A fibrous cord, a line or two in diameter, extended downward from the anterior surface of the constricted portion of the ileum, and was continuous with an elongated epiploic appendage arising from the sigmoid flexure. A Y-shaped cord, ten inches in length and a line or more in diameter, extended upwards to the right among the coils of small intestine, the two legs of the Y being adherent to the upper part of the small intestine by broad attachments separated from each other by a distance of nine inches, the upper leg being two and one half feet from the pylorus. All the cords were of a purple color.

The intestinal constriction was six feet five inches from the pylorus and seven feet six inches above the ileo-cæcal valve. The mesentery presented a slight, funnel-shaped depression, directed towards the stricture where it was attached to the intestine; its posterior peritoneal surface was more thickened and opaque than the anterior surface, which

appeared relatively normal. The course of the vessels within it were not to be made out from the abundant fat tissue present.

The intestinal canal at the constricted portion measured from within nearly one inch in circumference, its diameter being estimated as one third of an inch.

On cutting through the stricture along the mesenteric border of the intestine, the internal measurement at the stricture was found to be seven eighths of an inch. Cicatricial tissue united the upper and lower portions of the intestine here, their mucous and muscular coats not being continuous but turned inwards towards the canal of the intestine. Looking from within an annular ulcer was thus apparent, completely encircling the tube, the base being formed by the cicatricial tissue mentioned.

All the coats of the intestine for some distance above the stricture were thickened, the muscular coat in particular, while below no alteration in them was observed. Small *valvulæ conniventes* were present above and below the constriction.

The mucous membrane lining the globular pouch formed by the dilated intestine above the stricture was ulcerated to a moderate extent, in part thickened and roughened. A communication had been established between it and the descending colon, a half inch in circumference or about one sixth of an inch in diameter.

The stomach was largely distended with gas and contained a small amount of an opaque gray fluid. The small intestine immediately above and below the stricture contained a thick, opaque, yellow fluid. Scybala were found in the large intestine, between the cæcum and the fistulous communication with the small intestine; below the latter the large intestine was widely distended with gas.

Anatomical Diagnosis. Annular stricture of the upper part of the small intestine, with the loss of several feet of its length, and fistulous communication with the descending colon. Chronic peritonitis. Fatty degeneration of the heart. Chronic interstitial nephritis. Fatty liver.

NOTES ON SOME OF THE MOST FREQUENT FORMS OF SKIN DISEASE.¹

BY F. B. GREENOUGH, M. D.

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Seborrhœa. — In acne we have an eruption resulting from the occlusion of the sebaceous follicles; the functional activity of these glands may be increased without their becoming occluded, and this abnormal condition is known by the name of seborrhœa. When this exists we

¹ Continued from page 433.