CLINICAL LECTURE

ON

A CASE OF ILEO-COLIC INTUSSUSCEPTION.

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JOHN MCNEIL, a stonemason, aged 40, of full stature and good physique, but somewhat emaciated, and having a haggard countenance, had been working in a country village, from which he came to the Leeds Infirmary on January 8th. He had good health till the latter part of November last, six weeks before admission, when he had an attack of much pain in the body, and thought he had taken cold in the bowels. He was better and worse for some weeks, till the 21st December, when he was seized with violent pain and vomiting, the bowels being very costive. Hot fomentations and castor-oil gave relief; but now food could not stay on his stomach, nor brandy, but he could take port wine. There is no history of his having passed any blood from the bowels. He continued to have much pain and frequent vomiting, and diarrhoea succeeded to the previous constipation. The case was not understood; there was some suspicion of fever; and, to avoid risk, he was sent to Leeds.

At the time of admission, the symptoms were pain in the abdomen, varying in severity; occasional vomiting; anorexia; tendency to diarrhoea; tongue furred, and rather red on the margins; abdomen full, rather hard, tender especially on the right side. In the right iliac region, and along the course of the ascending colon (which was the principal seat of pain and tenderness), an induration could be felt and pretty clearly defined, having a dull stroke-sound. The liver was not enlarged; and between the inferior margin of the ribs and the induration below there was a space of two or three inches, which was soft and resonant, showing that the painful induration had no connection with the liver.

During his life in the Infirmary, the chief symptoms were pain, pretty continuous, but variable in degree; frequent vomiting, sometimes of ingesta, sometimes of dark, greenish fluid, of offensive smell, but not distinctly stercoraceous; diarrhoea, occasionally alternating with constipation; tongue red and furred, but not dry. Fulness and induration in the right abdomen were always present, but variable in degree; sometimes forming a distinctly perceptible elevation, which would afterwards subside. He gradually emaciated and became more haggard. Diarrhoea was the prevailing condition of the bowels; vomiting became more constant. His last days were passed in much pain. He died on the 8th March, three months and a half after the commencement of the symptoms.

It was evident that the disease, of whatever nature, lay in the ascending colon, where it occasioned both irritation and partial obstruction. I had suspected thickening and partial contractions of the walls of the bowel, probably with ulceration of the mucous membrane, and probably malignant. This hypothesis would account for all the phenomena, except, perhaps, the rapid progress of the case. The variable size of the tumour was clearly due to variable amounts of intestinal matter accumulated in the affected portion of intestine.

The palliative and symptomatic treatment adopted was all that could have been available from the time of the man's admission, had the exact nature of the case been diagnosed. Bismuth, alkalies, taraxacum, and other remedies, to restrain vomiting and correct abdominal secretions; turpentine epithems, occasional blisters, and other means of counter-irritation, when local pain and tenderness were aggravated. Once only, when vomiting had been unusually obstinate, in connexion with constipation of the bowels for some days, two grains of calomel were given, followed by a black draught, which produced the desired effect both upon the bowels and in quieting the gastric irritability, and were the occasion of no bad effects. But I certainly should not advise my class to administer active purgatives in a recognised case of intussusception as a general practice. The greatest amount of benefit was obtained by the use of opiates, both by internal and by hypodermic administration, for the relief of pain during the progress of the case, and for the attainment of such a degree of euthanasia as was possible at its close.

On the *post mortem* table the body was seen to be much emaciated, but the abdomen somewhat prominent. On opening the abdomen, a considerable amount of fluid appeared—serous, but yellowish and opalescent, as from some purulent intermixture. The superficial appearance of the viscera presented nothing remarkable, save that the stomach and transverse colon were much distended with flatus; but on turning away the small intestine from the right side, the ascending colon was seen distended, not with gas, but with some substance, so that when handled it felt hard and resisting as a solid cylinder.

On laying this open by a longitudinal incision, an elongated cylindrical tumour was seen to distend the greater part of the ascending colon; attached towards the cæcum, but otherwise lying free, and terminating upwards in an obliquely rounded extremity. It was surrounded by some purulent fluid, chiefly towards its base. The colour of this body was chiefly dark red, but mottled with patches of a slaty purple, and towards its free extremity it was of a dirty olive colour, as though sphacelated. This tumour felt firm and solid; but, as it was manipulated, some fluid exuded from its free extremity, and it somewhat shrunk, both in length and thickness. Further examination showed that this apparently solid body was an invagination of the lower part of the ileum, and of the cæcum into the ascending colon. A bougie would pass through its centre from the ileum, emerging at one side of its free extremity, where any aperture was scarcely perceptible, except as dilated by the passage of the instrument. Through this narrow canal, the transmission of all intestinal contents, which had been voided during the latter part of the patient's life, had been maintained. The mucous membrane lining the central canal (which was formed of the invaginated ileum) appeared healthy, as was also that lining the portion of colon which enclosed the tumour. Between the intermediate opposed serous surfaces considerable adhesions existed, so that the handle of a scalpel could be only partially introduced. The appendix vermiformis lay free between these surfaces. Other portions of intestine presented nothing unnatural. The liver was not large; the gall-bladder was much distended with dark bile. The left kidney was very small, not above half its natural size, but otherwise normal, maintaining the due proportion between cortical and medullary structure, and being neither indurated nor granular. In the right kidney, which was of natural size, was a small well-defined abscess containing matter.

The invagination commenced, most probably, with the patient's first experience of pain in the bowels, by a small portion of the ileum being drawn into the cæcum. The peristaltic action—propelling this involved portion of bowel, as it would any other continued matter, subsequently involved additional bowel, both above and below the ileo-cæcal ring; so that the cæcum itself, as well as a greater length of ileum, was drawn into the ascending colon. When once the opposed serous surfaces of the involved bowel have become adherent, it is evident that more bowel can be drawn in only by thus involving fresh portions both above and below the original seat of the displacement; as these serous surfaces will then no longer admit of that gliding upon each other, which must necessarily take place when an intussusception is increased only by additional portion of the upper, or anterior, intestine being involved. The junction of the ileum and cæcum is a common seat of this accident.

When intussusception occurs, it is the anterior portion of bowel which is drawn into the posterior, so that the natural propulsive action has a tendency continually to increase the extent of the mischief. On the contrary, were it ever the case that a posterior portion of intestine could drop into the anterior, the spontaneous action of the bowels would speedily reduce the displacement.

It is not often that an intussusception is unfolded; and when once adhesions have been effected between the opposed serous surfaces—which probably soon occurs—it is evidently impossible that this satisfactory result can be obtained. Intestinal obstruction is commonly the immediate result of this accident. The central canal is surrounded and compressed by two other concentric tubes; this compression is increased by the congestion of the strangulated vessels; and, in the case of the small intestine, the contortion occasioned by the mesenteric attachment still further obstructs the central passage. Thus it is that sudden severe pain, followed by intestinal obstruction and the combination of symptoms constituting *ileus*, usually characterises this accident. That any absolute obstruction did not occur in this case, was due to the large capacity of the colon which had received the smaller tube of the ileum.

The obscure nature of the early symptoms seems to have entirely resisted diagnosis at the commencement of the case; and the peculiarities of the previous history; and the prevalence of diarrhoea whilst the case was under observation in the infirmary, still left the diagnosis uncertain, until the disclosures of the *post mortem* examination.

I think that the anomalies in the progress of the complaint and its protracted duration are worthy of record.

As to treatment, when the case came under our care it had already passed beyond the possibility of anything but palliative symptomatic remedies, which would have been little modified had its real nature been certainly ascertained. After six weeks, the invaginated bowel must have contracted adhesions, rendering it incapable of reduction. Mild aperients and copious injections of warm water, slowly administered, with the object of unfolding the intestine, are the means specially adapted to the commencement of an intussusception; and throughout its course opiates or other sedatives must be given, to quiet undue peristaltic action and to relieve pain.