TWO CASES OF
COMPLETE INTESTINAL OBSTRUCTION
CONSIDERED WITH REFERENCE TO
TREATMENT BY ABDOMINAL TAXIS.

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Two considerations induce me to bring the first case before the profession—namely, (1) because it is an instance of a hernia occurring in a common situation, without any external visible sign; and (2) because if abdominal taxis had been applied the obstruction would almost certainly have been relieved. Abdominal taxis for the relief of acute obstruction has been strongly advocated by Mr. Hutchinson, but has scarcely received the consideration it deserves, bearing in mind the eminence of the advocate, his cogent reasons and the important array of facts by which he supported them.¹ Laparotomy for acute intestinal obstruction cannot be regarded as a trivial detail, and most surgeons will admit that precedence should be given to less heroic measures, provided that they offer a reasonable prospect of relief and that they can be carried out without prejudicing the chances of subsequent operative procedures. I have heard Mr. Hutchinson's proposals discussed as though they were advanced with the object of substituting taxis for laparotomy in these cases indiscriminately. But his words are these: "It is for the *early* use of anæsthetics in all cases, and abdominal taxis only in appropriate ones, that I plead."² It is obvious, therefore, that taxis is only intended to take the same position in the treatment of internal strangulation or obstruction that it has long occupied in cases of visible hernia. Mr. Hutchinson supports his arguments by recording several successful cases, and few surgeons will be able to point to as many successes after abdominal section. I would recommend those who are inclined to criticise this statement to weigh well the cases themselves as presented by him. I regret now that abdominal taxis was not practised in my case; but, had it been suggested, several reasons occur to me as likely to have militated against the adoption of the suggestion. The patient lived in a very inaccessible and distant place; his condition was very grave and rapidly becoming worse; all his surroundings were most unfortunate and delay of a few hours would have rendered operative interference hopeless. We should probably have argued that the time for abdominal taxis had passed and that delay would be fatal. Looking back with a knowledge of the exact nature of the obstruction and the ease with which it was reduced, it is almost a certainty that reduction under taxis would have readily occurred, and that in that case the chances of the patient's recovery would have been infinitely more favourable than after a laparotomy, however skilfully performed.

CASE 1.—On Tuesday, Feb. 13th of this year, I saw some distance beyond Holmfirth, in consultation with Dr. Watthews and my father, a man aged fifty-eight years, somewhat thin, but tall, strong and muscular. The commencement of his illness could be traced to the previous Tuesday, when he felt a sudden pain in the lower part of the abdomen as he was lifting a weight upwards in loading a waggon. He seems to have been not well on the succeeding days, but had no vomiting till the Thursday or Friday, and was not seen till Saturday by Dr. Watthews. On Sunday and Monday the vomiting became worse and finally stercoraceous, and on the Tuesday before we met it had become most urgent. The bowels had not been opened and no flatus had passed since the painful seizure on the previous Tuesday. At the time of our consultation the patient was collapsed and his hands and arms were cold. He had not the Hippocratic expression, but he had an air of great weariness and listlessness as though it bored him to answer the questions which were put to him. The tongue was moist and furred, and stained the colour of the vomit; the pulse was 68, but not good. There was no abdominal distension or tenderness, and a tympanitic note could only be heard in places. Splashing, evidently of the contents of the small intestine, could be obtained, as well as visible peristalsis and gurgling. The ordinary sites for hernia were very carefully examined, but no tumour was

present. The patient was not in pain, but described an uneasy feeling in his left iliac or inguinal region. After carefully considering all the circumstances we came to the conclusion that the bowel (probably the small intestine) had become in some way nipped and that complete obstruction but not strangulation existed. The only definite suggestion made—viz., "some form of internal hernia"—owed its origin to the patient having described a feeling of "something having given" previously to the onset of pain that occurred when loading the waggon. There was no divergence of opinion either as to the propriety or necessity of immediate operation. Consequently the patient was anæsthetised and the abdomen opened in the middle line, and at once a stretched loop of small intestine directed the finger to the left femoral ring, in which the end was fixed. A hernia undoubtedly existed, but even with one hand in the abdomen it was impossible to make out any tumour in the groin. Whilst this was being investigated, and without any attempt to reduce the invagination, it disappeared. The sac in which it had been caught was exactly fitted by the tip of the index-finger introduced for one-third of an inch. The bowel that had been nipped was then sought for and found. It was the ileum and was recognised by the presence of two constricting grooves three-quarters of an inch apart, each of which only encircled about three-quarters of the circumference of the bowel. In appearance and colour the included bowel did not differ from the bowel on either side of it and was quite healthy. There was, however, a very slight ecchymotic appearance in the adjoining mesentery. On both sides of the constricted portion the intestine was collapsed, but on tracing one side up for a few inches it quickly became distended. A band running from the parietes to the hernial aperture was ligatured and divided and the abdomen closed without any further search, the operation having taken only a very short time. On recovery from the anæsthetic the stomach emptied itself of a quantity of very foul faecal-smelling fluid. I heard subsequently from Dr. Watthews that after this the vomiting completely ceased and that the bowels acted several times during the night and the following day; but the patient never rallied from his collapsed condition and died twenty-four hours after the operation.

The mechanism of the obstruction in this case was not such as is usually found in cases of hernia. It depended, not upon strangulation at the ring, but on the acute kinking and stretching of the coil whose end had been caught. When the nipped intestine was being examined it was found impossible on account of the shortness of its mesentery to bring it outside the abdomen, and doubtless this condition was answerable for the involved loop being so stretched and kinked at the ring, where it was fixed. It is probable that the hernia was of the kind known as Richter's, in which the whole lumen of the bowel was not included in the ring; but the absence of any congestion of the included portion made it difficult to feel certain.

CASE 2.—I will now mention another instance in which symptoms of complete obstruction lasted for more than a week and terminated in recovery without any active interference, because it is probably an example of spontaneous reduction of a loop of intestine that had been nipped under a band. A young man aged eighteen suffered in 1886 from an abdominal condition which was regarded as tuberculous peritonitis. He completely recovered, but some months later was seized with pain in the abdomen, vomiting and marked succussion over the region of the stomach. Under opium he recovered in two or three days and I formed no opinion as to the cause of his illness. Not very long afterwards he was again taken ill with symptoms of complete intestinal obstruction. He was treated with opium and belladonna and fed entirely per rectum. His general condition remained so satisfactory on this plan that operative interference was not considered justifiable. On the seventh day of the obstruction he had a sudden pain on the right side of the umbilicus and "felt as though something was jumping about inside him." This was accompanied by audible gurgling. Within half an hour a very copious, dark-brown, offensive liquid stool was passed and three others of a similar nature came away during the night. Next morning the succussion was gone and he resumed his ordinary duties in a day or two and has never had any return of the condition.

The occurrence of spontaneous reduction of a loop of bowel that has been twisted, or nipped under a band or in an aperture, is a strong argument in favour of abdominal taxis, and if, in the early stage of obstruction in similar cases, this is thoroughly and systematically performed in accordance

¹ Hutchinson: Archives of Surgery, vol. i., p. 1.

² Ibid., vol. i., p. 254

with Mr. Hutchinson's suggestions,³ and "the body inverted so that the intestines drag upwards by their weight," there is great probability that in many instances the entrapped or twisted bowel may be released.

When strangulation has led to gangrene of the knuckle or to gangrenous ulceration at the site of the constriction it is very obvious that taxis is unsuitable. The early period, before the coats of the bowel have had time to suffer and before distension has become very marked, is most suited for its employment. At this stage it can hardly do harm and will not interfere with the success of a subsequent operation should it fail. In the later stages taxis may yield some brilliant results, as it might well have done in the case recorded; still it must have dangers of its own that cannot with certainty be prevented. Experience alone will show whether taxis under such conditions will have a better record than laparotomy. Early operation is held to be one of the most important essentials for success in laparotomy undertaken for obstruction; but the fact remains that a large majority of these cases are only submitted to it in the later stages when the patient's condition is bad and the prospect of recovery is small.

Two facts should be borne in mind when contemplating the relative merits of abdominal taxis and laparotomy: If the rule of practice were to open the abdomen at once when an acute obstruction due to a nipped or twisted bowel was diagnosed, then, certainly, a greater measure of success would result from the operation, but many cases would be operated upon that would have recovered if they had been left alone; on the other hand, though the conditions seen at many laparotomies are such, that taxis must obviously have been futile if it had been employed at the time when the operation was undertaken, yet in their commencement these entanglements are often very simple and probably quite capable of rectification by simple means.

Surgery, like everything else, must be judged in practice by its true needs and its true results. A successful operation is not of necessity good surgery; an operation, however successful, is an opprobrium to surgery if it is unnecessary. And, therefore, if it is possible in some degree to lessen the need for a serious operation by the early employment of a simpler measure, it may perhaps in some cases add to the legitimate triumphs of surgery and possibly in some degree diminish the human death-rate.

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INTESTINAL OBSTRUCTION BY A BAND; ABDOMINAL SECTION; RECOVERY.

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THE following case seems worthy of note, if only to record the course of the temperature after the patient's abdomen had been freely opened, the intestines withdrawn from the body and the peritoneal cavity sponged out. It is that of a man aged sixty-eight, but who looked much older, and who enjoyed uninterrupted good health up to about four years ago, when, whilst lifting a heavy weight, he felt something give way and became faint. A small left direct inguinal hernia formed and increased in size, causing considerable pain, but he was always able to reduce it himself by pressure. He procured two trusses in succession, neither of which suited his hernia, but a third truss fitted him more accurately. Whilst wearing the two badly fitting instruments he frequently suffered much pain not only in the seat of the injury but also in the abdomen generally, and he stated that at one time he had to remain in bed for some days and afterwards he spent hours in great pain, crouching over the fire. I presume it was then that the fibrous band formed which has since given him so much trouble, for it was after this that he first experienced occasional difficulty in the passage of his motions, accompanied by pain and flatulence. His appetite was generally good and his diet mixed. He was in the habit of taking large suppers, but was a very moderate drinker. On Saturday, March 18th of this year, having suffered from constipation for several days, he obtained some pills and medicine, which he said "cleared out wind and all." That appeared to have been his last motion for some time, for on the following Tuesday he took a dose of castor oil without effect. Later in the day he vomited, and during the succeeding days he suffered from

increasing discomfort and pain, vomiting at intervals. On Saturday night, March 25th, I saw him at his house. He was then in bed, lying on his back with his legs drawn up, and complaining of abdominal pain. I examined the usual and unusual hernial sites, with negative results. The application of hot stupes to the abdomen gave some relief, but no purgatives were given. On the 26th I gave him several injections of warm soap-and-water, ridding him of some flatulence, though of but little fæces. He vomited at intervals without much effort, but said that each time he did so his pain increased. On the 27th he consented to go to St. Thomas's Hospital. In the evening I found that he had not done so, but he said he would go in the morning. I placed him in the genu-pectoral position and tried injections with the long tube, but without benefit. On the morning of the 28th his pain seemed a little easier, but he vomited everything he took. He got his clothes on with assistance and said he was going to the hospital early in the day. At night I was again sent for. He was then very prostrate and his appearance was ghastly. The pulse was regular, but quick and small. The vomited material had a fæcal odour. Having called to my assistance two medical men, at the earnest entreaties of the patient and his responsible relatives I decided to operate on him without further delay. There was now no time for elaborate antiseptic precautions, but such as could be made were observed. The room in which the patient lay was disturbed as little as possible; the air was warmed and hot jars were placed at his feet. The instrument, sponges and cloths were carefully antisepticated in an outer room, and my hands made aseptic, according to the teaching of the Rotunda Hospital (and, further, I dipped my hands into a basin of hot carbolic lotion each time before reintroducing them into the peritoneal cavity).

The patient was placed under the influence of ether, which he took somewhat rapidly, the pulse improving in force. Having passed a catheter and cleansed the abdomen I began by an incision through the skin from slightly above and to the right of the umbilicus, straight down parallel to the median line to within an inch of Poupart's ligament, and I did so with intention, because a prominent distension on the right side seemed to indicate the seat of the obstruction, and I hoped for firmer union when the sutures engaged several layers of tissue superimposed than I would obtain after an incision through the median line. The peritoneum was reached without difficulty. Having stopped all hæmorrhage and cleansed the wound I waited, covering the line of incision with hot moist carbolised sponges to encourage bleeding; then, having secured a few bleeding points, I raised and divided the peritoneum on a director. Again soaking my hand in carbolic lotion I passed one finger into the abdomen, checking the bulging of the intestines with hot carbolised sponges prepared for the purpose. Passing my finger downwards to the hernial opening I found it and the other hernial sites free; then, carefully feeling for the cæcum, which I was at first unable to find, in consequence, I believe, of the displacement of the parts, I passed my entire hand into the abdomen and then downwards towards the pelvis, but without finding the obstruction. I then withdrew some of the intestines from the abdomen, receiving them on hot carbolised cloths; this done, I now came on the obstructed portion, which appeared to be some inches beyond the commencement of the large intestine, there being much congestion, distension and displacement. After some careful searching I was able to feel a band, against which the distended intestine was pressing, and, having assured myself as to its fibrous nature, I divided it. I was now able to draw the intestine towards the opening of the wound and to reduce some intussusception by careful manipulation. Reintroducing my hand into the abdomen I satisfied myself as to the absence of further bands or other obstruction. I then returned the intestines, carefully sponging out the peritoneal cavity, at the same time removing some ascitic fluid. Then, uniting the peritoneum by carbolised gut and the layers of the abdominal wall in succession by buried sutures of the same material, I dusted the surface with iodoform and covered the wound with dry dressing. The subsequent history is briefly as follows, the temperatures mentioned being those which I myself recorded:

March 29th.—At 3.30 A.M. the patient passed a fluid and offensive motion, with some flatus; similar motions were passed at 7.30 A.M. and 3.30 P.M. His temperature sank to 98° from 7.30 A.M. to 4.30 P.M. The readings were: 5 A.M., 98.4°; 7.30 A.M., 98°; 3 P.M., 98°; 4.30 P.M., 98.4°; 5.50 P.M., 98.4° (wound dressed); 7 P.M., 98°; 10.30 P.M., 98.2°.

30th.—He had four fluid motions on this day. The tempe-

³ Ibid., vol. i., p. 6.