A CASE OF NON-MALIGNANT PYLORIC OBSTRUCTION: DILATATION OF THE PYLORIC ORIFICE: RECOVERY.¹

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M. J., aged 51, the subject of this paper, first came under my notice about five years ago, when she was complaining of symptoms of gastric disturbance, such as one meets with in ordinary dyspepsia. She was at this time being attended by Dr. Fitzsimons, of York, who prescribed the ordinary stomachics. Her symptoms varied somewhat with the treatment, and she felt better some days than on others. About two years ago she commenced to vomit large quantities of food at intervals of a few days. I was then led to make an examination of the abdomen, the stomach being found to be somewhat dilated, but no appearance of any abnormal growth could be detected in any of the regions of the abdomen. The vomit was examined, but no sarcinæ or blood could be detected; the material ejected was intensely acid.

Owing to the patient living some distance away, I did not again see her for some months, when I found her greatly emaciated; the dilatation of the stomach had extended, and the quantity of fluid vomited was much larger than formerly. The stomach was again examined, but no hardness or thickening near the pylorus could be detected. She was now taught to wash out her own stomach daily with a long tube and funnel after the manner advised by Dr. Clifford Allbutt, which process gave her considerable relief.

In December last she appeared to be thinning rapidly, and from the nature of the contents of the stomach that came away with the washings out, I concluded that very little food was finding its way into the intestine. She was now fed with Slinger's nutritive suppositories and nutritive enemata, which appeared to keep up her strength for some time, till, in February last, the rectum became irritable, and it was with difficulty that a small enema could be retained. The injection of a few drops of a 4 per cent. solution of encaine into the rectum somewhat lessened the irritability. During the whole of this time, she never once recollects noticing any blood in the vomit, and taking this point into consideration, as well as her family and previous history, which I will now relate, I came to the conclusion that the obstruction, whatever it might be, did not appear to be malignant.

Family and Personal History.—Her parents are both dead, her father dying from apoplexy, and her mother from bronchitis, both over 70 years of age. All her brothers and sisters are strong and healthy. She had always enjoyed good health up to the time of her marriage, at the age of 24 years. Shortly after marriage, her husband, who was then in the army, contracted syphilis, and soon afterwards communicated it to her, the effects of which she says she feels to this day. She has had two miscarriages, has given birth to two still-born children, and has had three living children, all of whom died young. Ten years ago she had an attack of jaundice, accompanied by severe vomiting, when she says blood was noticed in the ejecta; but what the precise nature of the illness was I have never been able to determine (syphilitic gummata of stomach?). She continued to keep fairly well, with the exception of various eruptions on the skin, till she came under my notice as previously stated. She had been treated with antisyphilitic remedies both by Dr. Ure, and afterwards by his successor, Dr. Fitzsimons; and I myself had also given her large and repeated doses of iodide of potassium.

In February last, she expressed a desire to undergo any operation that might give her a chance of getting rid of her distressing symptoms. It was about this time that I first read two cases reported by Mr. Timothy Holmes, in which Professor Loreta, of Bologna, had successfully dilated the pylorus in two cases of non-malignant stricture. The patient readily acquiescing in any operation that I suggested, I decided, on March 7th last, to cut down on the pylorus, and see if operative means would in any way alleviate her sufferings. I was prepared either to dilate the pylorus, or else, if I found the obstruction malignant, to perform gastro-enterostomy by stitching the jejunum to the anterior wall of the stomach. On the morning of the operation, the stomach was well washed out with tepid water till the contents flowed away quite clear.

Chloroform having been administered by my friend, Mr. Pratt, I

proceeded to make a careful examination of the exterior of the abdomen. There was extreme dilatation of the stomach, extending below the level of the umbilicus; the liver appeared to occupy its normal situation, and no growth or hardness could be felt about the region of the pylorus. Under the carbolic spray an incision about five inches long was made in the right median line from just below the xiphoid cartilage, extending downwards and outwards to near the cartilage of the ninth rib. The muscles were divided and the bleeding arrested. The peritoneum was next opened and the stomach exposed. I passed my fingers round the pyloric part of the stomach, but detected no tumour, nothing being felt but a sense of hardness at the pyloric ring. Part of the stomach was now dragged through the wound, and a small aperture large enough to admit the finger was made on its anterior surface; the finger was then passed in and swept round the interior of the stomach, which was found to be quite smooth. By means of a pair of scissors, I now enlarged the wound in the stomach, in the direction of the pylorus, to an extent sufficient to admit the hand; terrific bleeding followed the incision, but as the stomach was well dragged out of the wound, no blood escaped into the abdominal cavity. The vessels were all tied with very fine ophthalmic silk ligatures. The index finger of the right hand was now passed to the pyloric aperture, but it would not admit it. I next tried a pair of fine dressing forceps, with long alligator blades; these, with some difficulty I managed to insert through into the duodenum. I now slowly opened the handles, and caused slight dilatation of the stricture; this was followed by the passage of a female urethral dilator, and gradual and slow dilatation was made, till I was able to insert the index and next finger into the duodenum, without feeling them at all tightly grasped. Loreta, in his cases, dilated with his fingers, till they were more than three inches apart, but I am perfectly certain that had I done so in this case, I should have seriously injured if not ruptured the gut at this position. Very little hæmorrhage resulted from the stretching of the stricture. The hæmorrhage from the wound in the wall of the stomach having quite ceased, I then commenced to stitch up the aperture, and this was by far the most tedious part of the operation. I used Lembert's method of stitching, and stitched up with very fine silk. The needle every now and then transfixed small vessels in the walls of the stomach near the edge of the incision, and these were difficult to stop completely. I found the best plan was to grasp a piece of the stomach wall containing the offending vessel, between the finger and thumb, and keep up slight pressure for a few moments. The wound was eventually closed, and the stomach carefully returned into the abdomen; the abdominal wound was carefully closed by exact approximation of its several different structures, and the patient put to bed. The operation lasted an hour and twenty-five minutes. Loreta states that his cases occupied half an hour, but I found that the stitching of the wound in the stomach lasted fully that time.

The abdominal wound was dressed with iodoform and McGill's salicylic silk. The patient was kept well under the influence of morphia, administered hypodermically, and was fed per rectum with eggs and beef-tea. She passed a good night, her temperature on the evening of the operation being 99.2° F. She remained in a very satisfactory state the next day; but on the third day after the operation she vomited once, the ejecta being almost pure blood, which I concluded had come from the wound in the stomach, the vessels of which gave rise to so much trouble in stitching up. Small quantities of ice were ordered to be sucked, and the vomiting did not occur again that day. Her temperature that evening was 101.5° F. Beyond this, up to the present time, her temperature has never been above 99° F. On the sixth day she was again sick, and brought up a couple of teaspoonfuls of blood. She never vomited again, and from that time up to now she has gone on progressing, her recovery not being marred by any other alarming symptom.

Loreta in his cases commenced feeding by the mouth on the fourth day; but, except ice, I allowed nothing to enter the mouth till the seventeenth day, when she was ordered a tablespoonful of milk every half-hour; this was retained, and the next day milk was supplemented by strong soup and beef-tea. The diet was gradually increased. She never vomited once, and at the present enjoys and is able to digest ordinary food. She has gained visibly in flesh since the operation. Although the obstruction at the pylorus is removed, the dilatation of the stomach exists; still, I think it is slightly less, and my object in bringing this case before your notice is to obtain some suggestions from members present as to the best means of reducing this distention of stomach.

Ever since the operation, the patient has been kept in the recumbent position, so that the food has been prevented from bagging the stomach downwards.

Professor Loreta makes no mention of dilatation of the stomach in

¹ Read at the annual meeting of the East York and North Lincolnshire Branch of the British Medical Association.

any of his cases, and they appear to have got up about the sixteenth day.

The application of the continuous current and massage have been suggested to me as means of increasing the tone of the muscular fibres of the stomach, and overcoming dilatation.

I shall be glad to put into practice any suggestion that any member of the Brauch present may wish to make, with a view of diminishing the dilatation. So far as I can ascertain, this operation has never been performed before in this country. Loreta states that he has performed it twenty-three times. Dr. MacBurney, of New York, has performed it twice, but both patients died. He, like myself, found that the operation lasted over an hour.

Since reading this paper last May, before the East York and North Lincoln Branch, I may state that the patient has progressed very satisfactorily; the dilatation is certainly less, although there is still room for considerable improvement. Her general health is excellent, and she is gaining flesh. She remains in the recumbent posture some time after meals, so that the weight of the food shall not unduly drag down the stomach. There is never any feeling of sickness, and, beyond the remaining dilatation, is to all appearances perfectly well.

STRANGULATED HERNIA AND ITS TREATMENT.

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EARLY in 1855, a series of cases of strangulated hernia passed through my hands, which seem to me to be of sufficient interest to call for their publication in a collected form, as, apart from their intrinsic interest, they teach some lessons which may be useful to the thoughtful surgeon.

The first case was that of a woman who had had a rupture, which was supposed to have been reduced; symptoms of strangulation continued, but no hernial protrusion was to be found; abdominal section was performed, and the woman recovered.

CASE I.—Rose H., aged 58, was admitted to the Cardiff Infirmary, under my care, on January 16th, with the following history. She had a rupture, supposed to be right inguinal, for four or five years. It came down more than usual on January 3rd, and as she could not return it, she called in a midwife, who used a considerable amount of force, and "got it back." Pain continued, however, and was so great that she sought medical aid, and a mustard poultice was applied over the abdomen, and on the 6th she had an ounce of castor-oil, which "moved her bowels thoroughly." Since then she has had no motion, though enemata have been administered several times. The castor-oil relieved her, but the pain soon returned, and on the 10th, for the first time, she had vomiting, "which was fecal," and which was repeated at intervals of about ten or eleven hours, with great relief for some hours on each occasion. The abdomen has since become gradually larger. Treatment has consisted of opium and belladonna internally, clysters and poultices externally.

She complains of great pain in the abdomen, which begins at the right groin, and extends to the umbilicus. There is some distension of the abdomen, specially on the right side, where there is some dulness and extra resistance. No hernia can be detected. The vomiting is frequent and distinctly fecal.

The history clearly pointed to reduction *en masse*, with a still existing stricture in the sac, or, more probably, an incomplete reduction of the hernia which had been previously noticed. At 8.30 p.m., after a consultation, I opened the abdomen for four inches, midway between the umbilicus and pubes. On lifting up the omentum, which was spread over the intestine, the latter was seen thickened and congested (claret colour), with a few specks of lymph here and there; and on introducing the finger to the internal ring, I could feel the intestine gripped by it. To this point, downwards, on the right side, the bowel was dilated; from it, onwards, it was contracted. With little difficulty I brought the parts into view, notched the ring with a hernia-knife, and then withdrew about two inches of gut. It was interesting to see the distal bowel fill with air, and resume its normal condition after the stricture had been divided. There was a slight tear on the outer coat, into which I put a small catgut suture. The operation was performed under all the usual antiseptic precautions, including the spray; but as the latter was cold, it was turned off early in the proceedings.

Hypodermic injection of morphine, one-sixth of a grain. No food. January 17th, A.M. No further sickness. Very slight pain. Looks

calm. Good night's rest. No motion nor flatus. Tongue dryish. Nothing taken but a little iced water. Urine drawn off at intervals.

January 18th, A.M. Yesterday, at 3 p.m., much pain and feeling as if abdomen was going to burst. Had hypodermic injection of morphine, one-quarter of a grain. At 9 p.m., passed some flatus. Feels very sinking. Had only had about a pint of milk and a little iced water. Moved to a fresh bed. To have gruel and beef-tea in small quantities.

January 19th. Wound dressed, looking healthy. Some distension of abdomen and tenderness on pressure.

January 21st. Bad night on account of her back. Found, on examination yesterday, that she had a bed-sore five or six inches in diameter. Dressing renewed last night. Tea and bread and butter added to her diet.

January 23rd. Antiseptic dressing stopped, and boracic ointment applied. Some suppuration around sutures, which were removed. Rectum loaded with feces.

January 24th. Warm olive-oil enema given, and bowels relieved (first time since operation) without any pain.

This patient was detained till April 22nd, on account of the bed-sore, which had healed by that time. On March 10th, a ventral hernia was noticed opposite the abdominal cicatrix, and a belt was put on to support it. On the 27th, she was up for the first time. The temperature was nearly normal throughout, never rising above 100° Fahr.

CASE II.—T. K., aged 19. Admitted to Cardiff Infirmary on February 18th. Patient states that he has had a right inguinal hernia for years, and that it has never gone back. On the 14th, it became swollen and painful, and sickness came on, and has continued daily notwithstanding treatment. On admission, right inguinal hernia, tense, painful; no impulse on coughing. Pulse small and thready. Vomiting; pain across abdomen. No motion since 13th. Ether was given, and herniotomy performed, under spray. Tumour seemed to be composed entirely of omentum, which was of a port-wine colour in some parts. Search was made for intestine, but none found. As the mass could not be returned, it was ligatured and cut away, and the stump returned. Drainage-tube inserted, and the wound closed. On examining the omentum removed, it was found that a small piece of bowel had been included in the ligature. It was impossible to be certain of this until the internal coat of the gut was seen, as it was intimately adherent to a part of the omentum which was of the same dark colour. The patient died four hours after the operation, never rallying, and constant vomiting continuing.

Necropsy.—On opening the abdomen, the gut was found to be quite patent, but it never recovered from its paralysis. On freeing the ligature, there was an opening in the bowel about the size of a sixpence. The constriction was at the lower part of the ileum, about a foot from the caecum.

CASE III.—B. W., aged 25, single, admitted February 28th, 3 p.m., states that she has noticed a small lump in the right groin for two months, which has varied in size from time to time. A week ago was seized with pain shooting up towards the umbilicus. Vomiting then came on, and has continued at intervals ever since. Bowels not moved for ten days. On examination, a small irreducible femoral hernia was found, painful on pressure, and having no impulse on coughing, which, she says, has previously varied from the size of a marble to that of a small orange. Pulse 84, regular, fairly strong. The patient was etherised, and, after the failure of taxis, herniotomy was at once performed. The bowel was of a dark claret colour, but glistening. I returned it easily into the abdomen, and followed it up with my finger, on withdrawing which I was astonished to find the contents of the intestine pouring out of the wound. The wound was at once enlarged upwards, and, after drawing out some feet of the bowel, a small round hole was found in it. This, after the abdomen had been washed out, was stitched to the abdominal wound. The patient died five hours after the operation.

CASE IV.—W. B., aged 14 months, admitted on March 11th, with a left inguinal congenital hernia. On the 6th, the child was sick through the night, and in the morning the tumour was noticed to be much further down than usual, and could not be put back. Sickness continued at intervals. No motion of bowels since the 6th or 7th, when there was some diarrhoea. Mother administered castor-oil on the 9th, but this was vomited. Has a tumour in the position of a left scrotal hernia, tense, somewhat tender, no impulse on crying, dull throughout, irreducible. Child suffering from shock, pulse scarcely perceptible. Taxis had already been tried in the out-patient department under chloroform. At 7.30 p.m., chloroform was given and herniotomy performed. Strangulated bowel of a deep claret colour. Drainage-tube inserted.

March 12th. Bowels open seven times during the night. No fur-