DESCRIPTION

OF THE

OPERATION OF GASTROTOMY.

BY J. COOPER FORSTER.

I was requested by my friend and colleague, Dr. Habershon, to see a patient under his care in Philip Ward, who was suffering from an epithelial cancer of the oesophagus, with a view of affording him some relief to the fearful state of starvation to which he had been reduced in consequence of inability to take nourishment by the natural channel. Dr. Habershon suggested the propriety of opening the stomach to pour food and drink directly into that viscus, the rectum having refused to retain nutrient enemata, and nothing but death of a most painful character presenting itself to the patient.

That a direct opening into the stomach, or "gastro-cutaneous fistula," might be formed, and the patient live some years, was certain. In an elaborate paper read at the Medical and Chirurgical Society last year by Dr. Murchison several cases of this kind were quoted, and I am indebted to that gentleman for the reference to them, in which patients with mechanical injuries (they amount to seven in number), the class most nearly allied to that with which this case is related, have had permanent fistula and lived.¹ There could therefore be no doubt that an operation such as was proposed might be attended with a similarly fortunate result, provided the patient's powers were not so far

¹ A case is mentioned in the 'Journal de Médecine et Chirurgie,' par Corvisart, Leroux, &c., in which a peasant received a wound with a cutlass which opened the stomach, and a fistula was formed through which food passed.
depressed that death must result from exhaustion without the operation.

Fearful as the proceeding appeared to me, and exceedingly doubtful whether death might not result from surgical interference, I did not hesitate, after due consideration, to come to the conclusion that an operation might be performed with at least the view of affording temporary relief to the poor sufferer. To pass a stomach-pump tube down the natural passage might, I thought, cause sudden death; and even if done once, could not be repeated as frequently as necessary to admit of a due supply of nourishment; and indeed no one who had carefully examined this case or seen others of a like character would for one moment have thought of hazarding the life of the patient by such a proceeding. A case has been related to me where a deceased surgeon of great notoriety passed a tube through a diseased mass, similar to that in this patient, into the pleura, and poured half a pint of beef tea into that cavity, and I felt therefore that the passage of a tube down the oesophagus was not warrantable. The operation of oesophageotomy next presented itself to my mind, but remembering the probability of an extension of the disease in the pharynx into the oesophagus as low down as the spot in the neck where the operation would be performed, the difficulty of its performance from the great depth from the surface at which the oesophagus is placed, the propinquity of the great vessels, and the inability to keep the opening patent afterwards, made me determine at once that this plan of relief was not feasible. I therefore came to the conclusion that the suggestion of Dr. Habershon, viz., of directly opening the stomach, was the only means to be adopted. Upon duly representing to the poor man the dangers of the operation, and the certainty of its only affording him temporary relief, he gladly caught at the idea, and wished any plan to be adopted that might relieve him from his present fearful agony occasioned by the pangs of hunger and thirst.

I examined him, with a view of determining the several steps of so important an operation. The abdomen was found as thin as could possibly be conceived, the anterior parietes apparently lying upon the posterior; the whole length of the abdominal aorta and the two iliac arteries could be felt pulsating most
distinctly; percussion yielded nothing but a universal dull sound; little therefore of a positive character was elicited as to the position of the viscera, and I was compelled to pass in review in my own mind the various steps of the proposed proceeding. The opinion of my surgical colleagues was obtained as to the feasibility and propriety of the operation; they all most cordially agreed with Dr. Habershon and myself in the advisability of performing it, and assisted me in the various steps. Sanctioned by the presence of the medical and surgical staff, I performed the operation, there being no experience in British surgery to guide me.

Accordingly, on the 26th March, at 2 p.m., the man was placed on his back in bed, which was raised on a table, fearing to move him, lest syncope of an alarming character might occur, remembering that no stimulant could be administered by the mouth. His pulse was very feeble; he was perfectly sensible, cool, and collected, and smiled assent to the expected relief; chloroform was not administered for several reasons, and the patient did not desire it. I stood on his right side and made an incision through the skin and fascia with an ordinary scalpel over the course of the left linea semilunaris, commencing at the cartilages opposite the intercostal space between the eighth and ninth ribs, and carried the incision downwards to the extent of three inches and a half; the tendinous portion of the oblique abdominal muscles was next divided, and the outer edge of the rectus exposed; the next step was to take care and avoid the hemorrhage likely to arise from dividing the intercostal arteries, which were seen lying on the transversalis muscle, and though generally small in this part, might give rise to troublesome bleeding, which would render obscure the appearance of the tissues; one vessel was therefore tied. The divided structures were now held apart by retractors, and an incision made carefully through the transversalis muscle, until the fascia lining it was seen; this was much wasted, so that although carefully wishing to separate it from the peritoneum beneath, I was unable to accomplish it entirely, and thus in attempting to pass the director underneath the fascia and superficial to the peritoneum, a small opening was made at the lower part of the wound in the latter structure. Taking advantage of the opening thus made, an ordinary director was passed through it and upwards towards
the ribs, and the peritoneum divided the whole length of the wound, thus exposing the viscus for which I was in search. A small portion of the left lobe of the liver was distinctly seen at the upper angle of the wound, and under it the stomach, which also extended into the left hypochondrium; the greater and lesser curvatures of the organ, in consequence of its small size, with a very thin omentum, quite transparent, attached to it, were also distinctly to be traced, which, coupled with the position of the viscus beneath the liver, and the thickened and peculiarly creamy white appearance of its surface, plainly distinguished it as the stomach; I therefore, with a tenaculum, carefully hooked it up to the abdominal parieties, passing the instrument through its anterior wall in a transverse direction, from left to right, and as much towards the left side as possible; taking care, however, not to drag it away from its natural position. A curved needle, armed with a strong silk ligature, was then passed through the walls of the stomach, and sowed to the parieties of the abdomen by an uninterrupted suture. After the first two stitches had been put in, I opened the organ by dividing that part of it included between the two portions of the tenaculum, and thus freed that instrument, the incision being about three quarters of an inch long, a few drops of blood passing into the stomach. I then continued to sew the divided edges of the viscus carefully to the abdominal parerties as I had commenced; in doing so the needle was passed one third of an inch within the stomach, so as to get a good hold, and then stitched with care to the skin, including as much as possible also of the abdominal parieties. The opening in the stomach was enlarged slightly, so as to get it of sufficient calibre to admit the end of the feeding tube. As the opening in the stomach was much less than the external wound, the remaining part of this was brought together with an uninterrupted suture, the divided peritoneum being left untouched. The greatest difficulty was experienced in adapting the edge of the mucous membrane of the stomach to the skin; the opening thus left was about large enough to admit the little finger. The operation was now completed without hæmorrhage (one vessel only being tied); and without great distress to the patient, immediately 2 oz. of warm milk, in which an egg had been beaten, were poured into the stomach.
Operation of Gastrostomy.

It will be observed that chloroform was not administered, although this agent has lately been described as a beneficial stimulant. This can only apply where small quantities are taken, for where the full effects of the drug are required, that is, in the performance of an operation, I know of nothing more likely to produce unpleasant consequences, such as vomiting or great prostration, or even death in such a patient as the present. Vomiting, above all things, was to be avoided, and as regarded avoidance of pain, I did not consider that the necessary incisions would be of a very painful kind. Moreover, the patient was remarkably cool, collected, and fearless of pain. All these considerations induced us to dissuade him from taking chloroform.

The position of the stomach in its natural condition determined the line of the first incision, viz., at the linea semilunaris, extending from the edge of the cartilages downwards; and with a view of testing the facility or otherwise with which I could reach the organ at this spot, I performed the proposed operation on the dead subject at this place and also at the linea alba. I soon discovered that with the former incision the stomach was not found with so much facility as in the latter, covered as it was by intestines; whereas, upon operating at the linea alba, immediately below the xiphoid cartilage, by simply raising the liver the stomach was exposed. Notwithstanding this, however, the fact that in the latter incision the pyloric end of the stomach instead of the cardiac was most likely to be opened, which was not desirable, and also remembering that the natural position of the stomach was in the left hypochondrum, I determined on adhering to my original intention of making the first incision at the linea semilunaris; moreover, the intestines would be less likely to interfere with my finding the stomach.

Sedillot, of Strasbourg, who has twice opened the stomach, made his incisions in a different spot, but I had not at the time I performed this operation seen any account of his proceedings; and my object being to get as near as possible to the cardiac end of the stomach, induced me to adopt my present plan. I can see no object in making a crucial incision through the rectus muscle, as recommended by that surgeon.

It will be observed that I was especially cautious in avoid-
The Operation of Gastrotomy.

ing any chance of the stomach becoming detached from the abdominal parietes, and I therefore sewed the organ to the parietes with an uninterrupted suture, taking also special care to include a good portion of the walls of the stomach in the stitches. I have since found that the accident which I mention did occur in one of Sedillot’s cases, and that soon after the operation was completed a violent fit of coughing tore the ligatures away and discharged the contents of the stomach into the peritoneal cavity.

Plate I—IV

Illustrating Dr. Habershon’s and Mr. Cooper Forster’s case of Gastrotomy.

Plate

I. Shows the external incision in the left hypochondriac region.

II. Shows the position of the stomach drawn up to the opening, after the interior of the abdomen had been exposed.

III. Exhibits the interior of the stomach, with the opening seen from the inside.

IV. Shows the growth in the oesophagus causing its almost entire occlusion.