CASE.

History.—W. O., male, aged 26, had had symptoms of gastric ulcer, with well-marked dilatation of the stomach, for two years; although the symptoms were not acute, the loss of flesh and strength was well marked, and the patient was rendered too feeble to work.

Operation.—I found the pylorus adherent to the under surface of the liver, and after detaching it I dilated the pylorus by invaginating the stomach wall until I could easily get two fingers through it. Recovery was rapid, and the patient gained flesh, but I hear that the dilatation has not subsided materially, though he has no vomiting or pain. If his symptoms recur I shall advise a gastro-enterostomy.

In the cases already referred to under perforation, in which omental adhesions had effectually occluded the opening into the peritoneum, and so saved the patients from acute general peritonitis, to detach such adhesions simply would have jeopardised the life of the patients, other means, therefore, such as pyloroplasty, had to be resorted to at the same time.

Wherever adhesions are very extensive and likely to speedily recur it is better to short-circuit the obstruction so as to give the benefit of an alternate route and so prevent a relapse.

Other Complications.

Had time permitted I could have given you examples either from my private clinic or from cases recently in the hospital wards, of operation for other complications of gastric ulcer, such as tetany, acute pancreatitis, persistent gastralgia and vomiting, fistula between the stomach and other viscera, and cancer supervening on ulcer, but I hope that what I have said will lead you to see that ulcer of the stomach is an extremely serious and common disease, which though at first a purely medical ailment, in the later stages and when complications have supervened, is one in which surgical treatment holds out the only hope of relief or cure in a great percentage of the cases.

The treatment of gastric ailments apart from cancer is only a recent encroachment of surgery, but I venture to think that it is not one of the least important, and I consider that the cure of some of the chronic dyspeptics, who are not only a source of misery unto themselves, but the source of much domestic affliction to others, will confer as great a boon on suffering humanity as the cure of many of the chronic and hopeless invalids whose residue of life could for the most part only be of short duration, and at the best one of suffering and distress without surgical treatment.

A CASE ILLUSTRATING THE RELIEF OF CHRONIC GASTRIC DISEASE BY GASTRO-ENTEROSTOMY.

By ARTHUR E. BARKER, F.R.C.S.,

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At a time when the surgical treatment of gastric disease, non-malignant and cancerous, is engaging much attention, it may perhaps be pardonable to put a single case out of a considerable number on record as one of the most typical it would be possible to find of the benefit to be derived from surgical interference in non-malignant but otherwise apparently hopeless disease. We need to be reassured, I think, upon this point, and this can only be brought about by actual experience. The case is also typical in its history and effects of a large group of stomach disorders, for which hitherto very little has been done, and in which much misery has been endured until death has put an end to suffering. There are also some details in the surgical procedure adopted in this case, and in its after-treatment, which may perhaps prove of interest and be useful to those who are beginning to undertake the operative relief of chronic gastric disease.

Mrs. L., aged 42, was sent to me at University College Hospital on January 29th, 1900, by Dr. Cole Baker, of Southsea, under whose care she had been for a long time, for dilatation of the stomach with great distress and extreme emaciation.

History.

When 12 years old she began to suffer from stomach derangement to a marked degree. At 14 years of age she had pains in the left side after food, and used to vomit large quantities of "dirty-looking water." Up to six years ago the patient was always under medical treatment for distension of the stomach. Six years ago she was ill for three months with "gastric ulcer," during which time she vomited blood. At this time she is stated to have had also "gall stones" and "jaundice." For the last sixteen months the patient has been using a stomach tube herself for relief after meals under the direction of her doctor. Her family history is good.

Condition on Admission.

She is a very anæmic woman, looking much above her actual age, and greatly emaciated, weighing only 5 st. 13 lbs. Except for some tenderness above the umbilicus, but without any tumour, the contents of the abdomen appear normal, with the exception of the stomach, which is largely dilated. My house-surgeon, Dr. Thiele, on examining the organ, found it to hold 66 ounces of fluid. The patient was in a state of extreme weakness and anæmia. The diagnosis made on careful examination was non-malignant pyloric stenosis due to contraction after ulcer. As there appeared to be no prospect of relief short of providing an outlet for the food from the stomach, a gastro-enterostomy was decided on.

Preparations for Operation.

The preparation for this operation consisted in careful washing out of the stomach repeatedly, and clearing out the bowels with enemata. On January 30th 500 c.cm. of normal saline solution were injected subcutaneously on the inner side of the upper left arm, and on the following day 1,000 c.cm., half of this amount in each arm. On the morning of operation another 500 c.cm. were injected. This measure improved the patient's general condition, and relieved her severe thirst to a large extent.

Operation.

The operation, on February 1st, 1900, was, as 'these operations go,' comparatively easy, owing to the extreme emaciation. The abdomen was opened in the middle line above the umbilicus, and a posterior gastro-enterostomy was performed in the usual way. This was facilitated by the use of Doyen's clamps. The openings in the two viscera were united by two rows of fine silk sutures, and the abdominal wound was closed by silk sutures taking up all the tissues of the walls. Just before closing the intestinal opening 3iv of Gerrard's peptones were introduced into the lower part of the jejunum with a Jaques catheter—a means of giving food on the operating table which I have used for some years in such cases. The condition of the pylorus had been previously examined into. It was found, with the duodenum, to be firmly bound down to the spinal column by old fibrous adhesions, and to be almost completely closed. There was no trace of malignant growth.

After-History.

The patient bore the operation very well, and there was at no time any shock and very little pain. The pulse was 80 and the temperature just above normal. Recovery was absolutely uneventful, except for a rise of temperature on the tenth day to 101° due to constipation, and which disappeared after an action of the bowels. The abdominal wound healed absolutely by first intention. Feeding by the mouth with small quantities of egg albumen and brandy was begun on the second day, and was soon increased. On the fourth day, as there was some discomfort in the stomach, I inserted a tube and drew off a quantity of bile-stained fluid with much relief. There was no blood in this fluid. This was repeated every day until the eighth day, as there was slight sickness on the sixth and seventh. After the eighth day there was no sickness. She now was able to take in the day 3xx of Benger's food and 3vj of egg mixture. On the ninth day she took 3xxviii of Benger's food and 3iv of bread and milk and 3ij of Valentine's extract with beef-tea. On the eleventh day she was able for scraped fish in addition to abundance of the other fluid food, and the next day had scraped meat. The bowels acted on the fourteenth day after an enema with much relief, and she sat up in bed, and the next day she got out of bed without feeling faint. Her weight was now 5 st. 13 lbs. as before the operation, and she was given minced chicken and custard. After this she was given laxatives regularly, which had a most beneficial effect on the bowels. On the twentieth day she was found to have increased 3 lbs. in weight, and on the twenty-seventh 9 lbs.; and when she left hospital on March 5th she had increased her weight to 6 st. 11 lbs., or nearly 1 st. since operation. By this time she was taking abundance of solid food, and digesting it well. When last seen in the summer she weighed over 9 st., and was the picture of health, having blossomed out into a rosy woman, fat and erect. She has since been seen in her home by one of the nursing sisters, who found her still fatter and able for almost any food, and feeling very comfortable after it.

This case appears to me to illustrate in a striking way the benefits of surgical interference in chronic stenosis. This patient had led a miserable life of pain and distress for several years, and had reached the last stage of weakness, which appeared likely to have terminated in speedy death. There was no hope of relief from any treatment short of operation. About the latter there is nothing special to note except the means which were employed to improve the patient's strength by previous injections of salines, and the fact that reliance was placed on the silk suture rather than any kind of button. In dealing with the abdominal contents asepsis was aimed at rather than antiseptis. The early feeding by the mouth as well as by the rectum is also worth noting, as well as the practice which I have followed for some time in this class of cases of frequently siphoning off the contents of the stomach for several days after operation. If there is any bleeding into the stomach, this is specially valuable, as the decomposed blood is the worst thing to come in contact with the wounds in the viscera. But even without any trace of bleeding, as in this case, the removal of bile and mucus relieves the patient much, and prevents vomiting, which might be disastrous.

It is to be hoped that cases such as this, which leave little to be desired, will encourage patients similarly affected, and their medical advisers to face the risks of operation, which are becoming less and less every day, rather than drift hope-

lessly to the grave in pain and distress. What the risks are in non-malignant cases where gastro-enterostomy is done it is impossible to state as yet in figures. In this case the risk was probably greater than had the operation been done before the extreme emaciation had been reached with which the patient came into hospital. But, at all events, they appear not to be greater than those accepted daily in other operations for conditions by no means so desperate. In this connection I may be allowed to say that among a considerable number of gastro-enterostomies which I have done I have never seen any trace of that kinking of the attached bowel which appears to have been so fatal in many cases. This may be due to the fact that for some years the method employed has been the retrocolic, which appears to me to have many advantages over the original anterior method. Again, I see no advantage in the use of Murphy's button in these cases, although I have used it in earlier cases with success and without any untoward occurrences. It may save a little time when we are not practised in these operations but not much now. This operation was completed in forty-four minutes.

REMARKS ON A CASE OF RETROPERITONEAL CYST.

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THE pathology of retroperitoneal cysts is still incomplete. In some cases these growths have been not only developed in the immediate neighbourhood of the pancreas, but they have been found to contain within their structure pancreatic glandular tissue. Cases have been recorded in which cystic tumours have been intimately connected with the whole gland or attached to the pancreas by a well-defined pedicle. The gland has been known to atrophy from the direct pressure of the growth, or from the invasion of its structure by the expansion and development of the cyst itself. Cysts have been found undergoing purulent degeneration, and their contents have been mixed with blood clot or mingled with the traces of bygone hæmorrhage. As regards the presence in cystic formations of distinct pancreatic secretion, I believe it has been discovered only in small and recent growths.

Retroperitoneal cysts have been attributed to various causes. Some have regarded them as the outcome of the organisation of plastic exudation around blood clot; others have explained their origin in the localised changes excited by inflammation of the pancreas itself. A cystic formation may commence from a small rupture of the gland followed by parenchymatous hæmorrhage, and the spaces thus produced are soon filled with blood and pancreatic secretion. It is probable that pancreatic cysts are generally the result of traumatism, or are caused by obstruction of the excretory ducts and retained secretion. Besides, however, internal lesions within the pancreas itself, calculi have been found lodged in the duct of Wirsung; the ducts of the gland have been compressed by the development of new growths, and pancreatic retention has been known to follow plugging of the ductus choledochus with a gall stone near its orifice.

Sometimes retroperitoneal cysts are associated with malignant tumours. Two years since a woman in advanced life came under my care with a large abdominal cyst. She had suffered a great deal of pain, while marked cachexia and emaciation were present. The swelling was central and prominent, and was surrounded by intestinal resonance. When the abdomen was opened the cyst could be traced to a deep and broad attachment. It presented below the transverse colon, and its surface was covered with distended vessels. The fluid contents were septic, thick, yellow, and offensive. The cyst was fixed to the lower end of the wound and drained. She found great relief from the treatment, and left the hospital, but I have not been able to trace her since.

In the following case the pancreatic origin of the cyst was undetermined, and the only evidence in favour of such a conclusion was the position of the tumour and its deep attachment discovered at the time of the operation.

H. P., a married woman, and the mother of two children, came under my care in December, 1897.

History.—After the birth of the youngest child she had two miscarriages. On her admission to the Royal Portsmouth Hospital she stated that the abdomen had been increasing in size for many months, and she thought that she was again pregnant. The swelling commenced near the umbilicus, and she had suffered no pain or any disturbance of her health. On examination the abdomen exhibited a well-marked swelling extending from 3 inches above the umbilicus to the pubes. The long axis ran downwards obliquely to the left, and a distinct sulcus was situated over the umbilicus. The walls of the abdomen were elastic and moved freely on the tumour, and its outline was clearly discernible. Fluctuation was very distinct in all directions. The circumference of the abdomen at the umbilicus measured 37 inches. The pelvic organs were healthy, and the uterus normal in size and freely movable. Resonance on percussion was well marked in the left flank and over both inguinal regions.

Operation.—Laparotomy was performed on December 27th, 1897. The surfaces of the cyst when exposed were found to be continuous with the inferior layer of the mesocolon, the descending colon presented on the left, and the small intestines overlapped it below. The tumour extended backwards towards the centre of the abdomen, and the vessels in every direction were much distended. Six pints of a clear and slightly yellowish fluid were removed by aspiration, and the operation was completed by fixing the cyst to the lower angle of the wound and inserting a glass drainage tube. On examination the fluid presented the following characters: Clear, alkaline, very slightly coloured, specific gravity 1020, no definite elements beyond a few blood and pus cells with granules.

After-History.—During the following two weeks a small quantity of the same kind of fluid was drawn off daily with a glass syringe, and the interior of the cyst washed out with sulphurous acid lotion. The wound rapidly healed and the patient left the hospital on January 27th, 1898. In the month of November she was confined with her third child. I saw her again early last year, she was then in good health. The abdominal scar was sound, and some depression and thickening could still be detected at the lower angle.

The physical examination of the abdomen clearly indicated the presence of a large cystoma, but its origin and relations were uncertain. The central swelling, the resonance in the inguinal regions, and the condition of the pelvic organs contraindicated the existence of an ovarian or broad ligament cyst. When the abdomen was opened the surface of the tumour appeared to be overlapped in all directions by the surrounding organs, and the mesenteric vessels could be seen stretched over its exterior. It was partially movable from side to side, with its base firmly and deeply fixed in the abdominal cavity. After the evacuation of the fluid contents it was very easy to make out its lumbar attachment and its retroperitoneal relations. When the cyst was drawn forwards into the wound, it carried with it the whole mass of intestines both large and small. I did not introduce my hand into the interior as the empty sac contracted firmly, and as it appeared probable that the manipulation would be attended with some risk.

A cyst may be developed behind the stomach, and behind or within the peritoneal sac, and may ultimately reach the surface by displacing that organ upwards and pushing forwards the lesser omentum. In this position it will protrude itself above the transverse colon. In my case the tumour was found in contact with the abdominal wall just below the umbilicus, the great omentum was puckered up to the right, the transverse colon partly covered the upper part, and the descending colon overlapped it on the left.

The diagnosis of small retroperitoneal cysts is often impossible, as they are covered up completely by the abdominal organs; but, when a tumour has reached a considerable size, a fluctuating swelling can be detected in the centre of the cavity. In many recorded cases of genuine pancreatic cysts the patients have suffered pain and marked debility. Sometimes diabetic symptoms have been observed, and also the presence of fatty matter in the stools. In a few cases jaundice has occurred from pressure on the common bile duct, and also sudden death caused by the rupture of a large cyst and internal hæmorrhage.

In my case the patient suffered from no pain and very little inconvenience, and for many months she considered herself pregnant. There was at no time any reflex cardiac disturbance or dyspeptic trouble from pressure on the nerves of the solar plexus. Her health continued good, and she carried on without interruption her household duties.

In all cases of doubt and difficulty it is my practice to make an exploratory incision, for in no other way can the relations and character of a disorder be determined. Paracentesis is a very unsatisfactory proceeding, and practically reveals nothing, and is certainly not always free from risk. The escape of some kinds of cystic fluid into the peritoneal cavity may excite serious symptoms, and the accidental puncture of a dilated vessel may be followed by fatal hæmor-