SIMULTANEOUS EXCISION OF TWO-THIRDS OF THE STOMACH, THE ANTERIOR FACE OF THE PANCREAS, AND THE TRANSVERSE COLON FOR CARCINOMA.

By CHARLES P. CHILDE, B.A., F.R.C.S.,
ASSISTANT SURGEON, ROYAL PORTSMOUTH HOSPITAL.

As far as I am aware there has not been—in the English journals, at all events—a case recorded of the above operation, though I am perfectly open to correction on this point, not having had an opportunity of making an exhaustive examination of the literature on the subject. The greater portion of the transverse colon was excised at the same time as the stomach, not because it was itself involved in the disease, but on account of the necessity of sacrificing its blood supply in order to get wide of the growth.

B. P., aged 35, was sent to me at the end of September, 1905, by Dr. Archdall Reid, who was present at the operation.

History.

She stated that her mother died of cancer of the liver. She had had six children. Previously to her present illness she had always had good health, with no history of indigestion or symptoms pointing to gastric ulcer at any time. Twelve months ago she first noticed severe pain in the left hypochondrium and epigastrium, coming on generally within an hour of eating, and sometimes relieved by vomiting. She had steadily lost flesh, to the extent of about 3 st.; she had never vomited large quantities of food at long intervals, and had never vomited blood to her knowledge; nor had she passed any black stools except when taking medicine (bismuth). Latterly she had been reduced to entirely liquid food, being unable to retain anything else. The bowels were sometimes confined, at other times loose.

Condition on Admission.

She was a cheery little woman, with pluck and confidence written on every feature—just such a patient as one likes to meet with for a severe operation; this makes a difference. She was very thin and pale, but had a cancerous cachexy. A hard, nodular tumour, the size of a small fist, occupied parts of the epigastric, umbilical, and right hypochondriac regions. It was freely movable, could be pushed over into the left hypochondrium, and descended slightly on inspiration. A tympanitic note was elicited over it, due, as was evident on opening the abdomen, to the transverse colon overlapping it; and a tympanitic note was obtained between its upper border and the liver. On inflating the stomach its lower border reached the level of the umbilicus. An examination of its contents showed an absence of free hydrochloric acid, and the presence of blood in small quantity. The liver was not enlarged. Vaginal and rectal examination were negative. The urine was normal.

The diagnosis was made of carcinoma, involving the stomach or transverse colon, or possibly both.

Although I did not feel very hopeful of being able to do much for her, yet she was very anxious that an attempt should be made. I thought perhaps, too, that the growth might be one of the transverse colon pressing on the stomach (though the absence of free HCl was against this), and capable of removal.

Operation.

After the usual preliminary preparation the abdomen was opened about 1 in. to the right of the median line on October 5th, 1905. The rectus was enucleated from its sheath and turned outwards. The tumour was found to involve about

half the stomach, extending from the pylorus along the anterior and posterior walls, which it infiltrated widely. The transverse colon itself was not involved in the growth, but the blade of transverse mesocolon containing the middle colic artery was closely blended with the gastro-colic omentum, these twoomenta, together with the posterior wall of the stomach and the anterior face of the pancreas, forming one inseparable mass behind. This, of course, was a very serious complication. Still, on careful examination, it was thought that the pancreas was not deeply involved, as the growth, together with the pancreas, could be moved quite freely. There were a few small hard glands in the gastro-hepatic omentum, close to the lesser curvature, but apart from these no glands could be seen or felt. The liver was normal in size and appearance, and no nodules could be felt or seen in it.

The disease, therefore, though extensive, appeared to be expending its force chiefly locally, and it was decided to make an attempt to remove it. It was evident that the blood supply to the transverse colon would have to be cut off, and that an enterectomy would form part of the operation. The plan sketched out in my mind was to remove the growth with the gastro-hepatic omentum containing the glands above, and the gastro-colic omentum and transverse mesocolon below, cutting it away from the pancreas behind; to close the openings in the duodenum and stomach; to perform posterior gastro-enterostomy between the cardiac end of the stomach and the jejunum; finally to excise the portion of the transverse colon whose blood supply had been cut off.

This operation was accordingly carried out in the following manner: The first part of the duodenum was freed behind and divided between two clamps well beyond the disease. The gastro-hepatic omentum, including the glands, was tied in section close to the liver and cut. The gastro-colic omentum and transverse mesocolon were similarly treated. The pyloric end of the stomach was now pulled forward and to the left, and a thin layer of the anterior surface of the pancreas snipped through with scissors, the bleeding points being secured as cut. I was in considerable fear at this stage of cutting the superior mesenteric artery, but succeeded in separating the tumour without this untoward accident. When the growth had been freed from the pancreas the stomach was clamped in two

Fig. 1.—The stomach has been bisected longitudinally. The anterior half has been removed, and the growth is seen from the front. A, lesser curvature infiltrated with growth; C, greater curvature infiltrated with growth; B, healthy stomach wall cut across; D, healthy duodenum cut across.

places well beyond the growth, and cut through. This completed the removal of the tumour, and, as far as could be judged, it was got clear away. About one-third of the stomach, at its cardiac end, was left behind. The duodenum was then closed with a double row of continuous sutures, and dropped in. The stomach was treated in like manner. Posterior gastro-enterostomy was next performed between the stomach and the commencement of the jejunum. It was now found that about 6 in. of the transverse colon had been deprived of its blood supply. It was accordingly excised, and an end-to-end anastomosis performed with a double row of sutures. This completed the operation, or rather series of operations, and the abdomen was closed.

After-history.

The patient was rather collapsed at the finish, and had an intravenous saline injection. She recovered quickly from the shock, was a little sick once, and the next morning looked almost as well as the day before the operation. The highest subsequent temperature was 99°. The stitches were taken out on the eighth day, when all was found soundly healed; she recovered, in fact, without giving one a moment's cause for anxiety.

Rectal feeding was entirely employed during the first forty-eight hours, as she did not seem to need anything by the mouth. After that she was by degrees fed with small quantities of fluids and Benger, and in a fortnight was taking light solid food. I exhibited her at the Divisional meeting at Portsmouth, together with the specimen, five weeks after the operation, when she was up and about, taking ordinary solid food of

digestible quality and not in too large quantity, and rapidly gaining in weight and strength.

Description of the Parts Removed.

The accompanying reproductions of photographs taken for me by Mr. Arnold of Southsea show well the extent of the growth and the parts removed. The stomach was not at all dilated, and after removal the forefinger could be passed through the pylorus. The growth, which is well defined, is seen (Fig. 1) to be infiltrating along the anterior and posterior walls for about half their extent. There is no macroscopic ulceration of the mucous membrane. The condition found was in accordance with the symptoms before operation. There had not been symptoms of dilatation—vomiting of large quantities of food at intervals—and there had been no naked-eye haematemesis, though the microscope showed the presence of blood in the contents of the stomach.

Fig. 2 is a back view of the stomach, showing its attachment to the pancreas, and the matting together of the gastro-colic omentum and the mesentery of the transverse colon in the growth.

To complete the picture, Fig. 3 shows the portion of the transverse colon excised. A microscopic section demonstrated a carcinoma with abundance of fibrous stroma between the alveoli, and one of the glands examined exhibited carcinomatous deposits.

REMARKS.

The operation cannot be described as a complete gas-

trectomy, as enough stomach was left (about one-third) at the cardiac end after getting completely free of the disease to perform gastro-jejunostomy. It is held by some that by the time a tumour can be felt in the stomach the time for attempting a radical operation has gone by. From this view I emphatically dissent. Though it is too much to expect that the operation in the present instance will do more than prolong life and comfort for a time, the following point about cancer cannot be too strongly insisted upon. The clinical course of cancer, though conforming generally to a well-recognized type, varies within very wide limits.

For instance, one often sees quite an insignificant-looking epithelioma in the mouth or on the lip, with extensive glandular infection in the neck. On the other hand, one finds, and not uncommonly, most extensive disease in the mouth, without a gland, or with hardly a gland, to be felt in the neck. In other words, in some cases the disease tends to rapid systemic infection, in others it seems to expend itself chiefly locally. This may be due to a mere accidental detachment of cells or otherwise, and their lodgement in neighbouring glands. Whatever be the cause the clinical fact is there. So that, while admitting that early diagnosis and early operation is the only treatment which will generally give satisfactory results, I hold that in individual cases, whatever the extent of the disease, if the surgeon thinks he can remove it, he should give his patient the choice of operation. With certain death staring him in the face, the patient, after having had the risks of the operation fairly laid before him, should be at liberty to take the chance, though it be only one in a thousand or one in ten thousand. One never knows beforehand that an apparently hopeless case is not going to turn out well. If I remember rightly Mr. Butlin emphasized this point in a recent account of his tongue cases in the BRITISH MEDICAL JOURNAL. I can fully con-

firm it, and other surgeons can no doubt do the same. To give one instance. I removed from a patient the floor of the mouth, 3 in. of the lower jaw, and part of the tongue, doing at the same time an extensive operation in the neck. The disease was proved microscopically to be epithelioma. If I had been asked at the time my opinion as to his future prospects I should certainly have given him but a few months without recurrence. Yet now, four years afterwards, he is absolutely free of disease, and, I have no doubt, cured. These cases are no doubt exceptional, and I must admit that the results of operation in the mouth, when the disease is far advanced, even though a most extensive operation be performed in the mouth as well as the neck, are disappointing as regards recurrence. Yet if only 1 in 20 or 1 in 40 escapes without recurrence it is worth the doing, if the patient likes to take the chance. It is one life saved from absolutely certain death.

Of course this line of argument will not recommend itself to the approval of the statistics-hunter. In my opinion lives are of more value than statistics. In this opinion I am inclined to think the patient, at all events, will concur.

With regard to the operation itself there is not very much to be said. The four openings in the gastro-

intestinal tract—namely, those caused by the sections of the duodenum and stomach, the gastro-jejunostomy section, and the enterectomy section—were all closed with a double row of continuous silk suture, one haemostatic through all the coats, the other sero-muscular. No button or bobbin of any kind was used. All the openings proved watertight. The operation of closing the duodenal and stomach walls completely, and subsequently performing gastro-jejunostomy, seems a much sounder practice than attempting to join the duodenum to the stomach. I have never tried the latter plan, but it appears

Fig. 2.—The stomach viewed from behind. The matting together of the posterior wall of the stomach, the anterior face of the pancreas, and the gastro-colic omentum and mesentery of the transverse colon are shown. A, posterior wall of stomach not adherent; B, B, where the growth, the pancreas, and the omenta were adherent.

to me that to fit the duodenum on to the stomach, after pylorotomy or partial gastrectomy, must be more difficult and not so safe.

It is true that in the other plan there are three joins instead of one, but the joins are easily and safely made and without any tension on the stitches. Personally I would rather have half a dozen joins in my abdomen which I felt had been easily and safely made, than one which had given the surgeon any difficulty or was open to any suspicion.

It is important to look well to the blood supply of the transverse colon during operations involving the stomach wall, and to excise any portion whose nutrition has been interfered with.

In the present case there was no doubt, after the exposure of the parts, of the necessity of sacrificing the greater portion of the transverse colon. This, however, is quite exceptional, and the importance of not including the transverse mesocolon carrying the middle colic artery, while ligaturing the gastro-colic omentum (with its disastrous consequence, gangrene of the transverse colon) has been emphasized by other writers.

Last, but not least, early diagnosis, and in default of

this early exploratory operation, is the real secret of success in these as in all cases of cancer, and one a consideration to which every other is of secondary importance.

Fig. 3.—The portion of transverse colon excised, with the omenta attached. A, transverse colon showing longitudinal muscular band; B and C, omenta attached to it.

THE ACCURATE DELINEATION OF TUBERCULOUS FOCI IN EARLY DISEASE OF THE KIDNEY IN WOMEN BEFORE OPERATION IS UNDERTAKEN.*

(WITH COLOURED PLATE.)

By HURRY FENWICK, F.R.C.S.,

SURGEON TO AND A LECTURER ON CLINICAL SURGERY AT THE LONDON HOSPITAL.

From this brief clinical review of renal tuberculosis, and from my statistics of successful nephrectomy (1 death in 45 cases) which I have laid before you, you will agree with me that the diagnosis and treatment of a primary tuberculous kidney in women is comparatively easy, provided the patient has renal pain, a renal tumour, an evening temperature, tubercle bacilli in her urine, and that the cystoscope demonstrates a characteristic change in the orifice of her aching and enlarged kidney. This is an advance of the last decade. But I want you, gentlemen, to-day, to learn how to take a much greater step forward in the accurate detection of this disease—a step which I feel convinced marks real progress in the future conservative surgery of the kidney. I will show you how a diagnosis can be made in some cases in which the disease is *latent*, even when no pain or tenderness is felt in the

kidney region, when no enlargement of the kidney can be discovered by the surgeon, when no tubercle bacilli in the urine can be found, when there is no guiding temperature—in fact, when no symptoms exist to help you to a correct diagnosis of kidney trouble at all—certainly none to permit you to assert definitely that tuberculosis of either or which kidney is present. So much I can teach you, but I am still more ambitious. I desire to demonstrate to you that you can in certain cases take pen or pencil and sketch with accuracy the areas of latent tuberculous disease in such a kidney, and mark you, not with diffidence, nor with hesitation, but with confidence and with certainty.

There is a woman, aged 44, in my operation ward, who was sent to me on September 21st, a little more than a fortnight ago, by Dr. J. Mackay of Halifax, for cystitis. She has had frequency and pain in micturition and pain in the perineal body for a year. There are no other symptoms, no pain in the loins, neither kidney can be felt. There is no temperature. The urine is acid and sterile—it contains small crystals of calcic oxalate—no tubercle bacilli. Dr. Eastes's full report is as follows:

Specimen.—Mrs. H., received September 21st, S.G. 1024, a distinct trace of albumen. Urates had separated but were dissolved by warmth before centrifugalizing. The deposit is chiefly composed of small crystals of calcic oxalate, frequently aggregated into small masses embedded in mucus. There are a very few granular tube casts, some red blood discs, and a small number of renal pelvic cells. There is no pus. No tubercle bacilli have been found.

Dr. Mackay suspected tuberculosis, but both his experts have failed to find the bacilli. Two London expert bacteriologists have examined for these bacilli at my request and have also failed to find them. This is so unusual in my tuberculous cases that I make an especial note of it. Thus the patient has no evidence, subjective or objective, of renal tuberculosis. But if you will come to No. 5 theatre I will cystoscope this patient, and demonstrate to you what I found a fortnight ago, when I examined her, namely, a displaced, retracted, left ureteric orifice, and a bladder which is only slightly eroded. On these two grounds alone I diagnose a left renal tuberculosis. I shall proceed further to draw for you a diagram of the exact state of her left kidney on the blackboard, marking those areas which I know to be affected by tuberculosis, and outlining the characteristic condition of her diseased renal pelvis, and the shape and calibre of her affected ureter. I shall then remove the left kidney without opening it, and after splitting it let you compare it with the sketch on the blackboard, so that you yourselves can judge whether my contention that an accurate appreciation of the disease in this kidney can be afforded by the cystoscope has been rightly urged or not. I may add, this patient was admitted yesterday, not for your edification nor to illustrate my lecture, but to be cured, if possible, of a dangerous disease. Moreover, I am not to-day doing anything unusual in making a blackboard diagram of latent kidney disease before operation. I now do this routinely, when I am certain of my facts.

[The patient was now anaesthetized, and the left ureteric orifice was shown by means of the cystoscope to each member of the class and the various visitors to the clinic. The opening was seen to be displaced, retracted and red, the left ureteric bar appearing as a broad, grooved, red fold (Plate D, E). The rest of the bladder was shown to be superficially eroded. A rough diagram of the kidney was then made on the blackboard. Three salient features were delineated.

1. Dense adhesions at the upper and lower poles. The middle third of the cortex was declared to be free from any adhesions.

2. The ureter was represented as greatly thickened (to the size of an ordinary lead pencil) and its calibre was declared to be narrowed.

3. A longitudinal section of the kidney was pictured so as to demonstrate a slightly dilated pelvis. The upper and the lower calyces were shaded to show that they were eroded by tuberculous ulceration, and from these erosions miliary tubercles were dotted in, as being sparsely scattered towards the cortex.

The middle third of the kidney was marked off as comparatively healthy.]

I should like to have supplemented this rough blackboard sketch with a letter I sent back with the patient to Dr. Mackay on September 21st, in which I drew a better

* An extract from a post-graduate demonstration in No. 5 Operating Theatre, October 9th, 1905.