pieces to fit the three parts of the bed, the three pieces being hinged together. The bed has been in use in my wards for two years, and is much favoured by both patients and nurses. Patients can be moved frequently and without effort; they are more comfortable and are more completely rested than formerly.

The original model of this bedstead was built with funds generously given for the purpose by Frederick Faust, Esq.

THE ACUTE PELVIS.*

BY

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THE object of the present short communication is to bring forward some points of interest in the diagnosis and treatment of cases presenting symptoms suggesting acute pelvic conditions. The observations are based on cases in my own experience. They may be conveniently grouped into those presenting symptoms accompanied by fever and those which present symptoms accompanied by shock. The symptoms may be associated with bilateral signs in the pelvis or by signs localized to one or other side.

Symptoms suggesting Acute Pelvic Lesions accompanied by Fever.

When a bilateral tumour or marked tenderness, situated at both sides of the uterus, is discovered in a woman of the child-bearing age the diagnosis of a pyosalpinx or acute salpingitis is suggested. The interest of the condition lies more in the matter of treatment than diagnosis, and centres round the time of election for operation. Comparison between the pathology of acute salpingitis and that of puerperal peritonitis illustrates the value of delaying operation until the inflammatory process has become well established.

In the very fatal peritonitis following labour or miscarriage the abdomen is found at laparotomy more or less filled with purulent discharge, and pus is seen issuing freely from the open mouths of the abdominal fimbriae. This suggests that salpingitis and pyosalpinx formation is a protective mechanism, and that it is in part the reaction in the Fallopian tube which prevents every ascending infection from becoming generalized. If this is granted it affords the indication for surgical intervention during the acute stage of salpingitis—that is, when there is evidence that the limiting process has failed and the disease is spreading, or when there is uncertainty as to the diagnosis. It may be true that surgery in the early stages will accelerate the convalescence, but the recuperative powers of the Fallopian tube are too well known further to remark upon, and the value of conservatism is nowhere better seen in gynaecology than in the treatment of disease of this structure.

Bilateral tenderness in the pelvis, apart from definite tumour formation, is included because of the occurrence of acute pneumococcal peritonitis, which may be found in adults in the primary form and may simulate an attack of salpingitis. It is mentioned because the symptoms in the earliest stages may be referred to the pelvis rather than to the general abdominal cavity. When the signs are unilateral the difficulties of diagnosis are greater. If the symptoms are accompanied by signs on the right side of the pelvis, the main point in the differential diagnosis will be to distinguish between appendicitis and salpingitis, in view of the divergence in the treatment of the two conditions. Either of them may present such a variable picture that a diagnosis based upon the inflammatory phenomena as they affect these two neighbouring viscera is bound to fail quite frequently.

In contradistinction to appendicitis, salpingitis is the last stage in a morbid process, and if attention is focused on the whole of the genital tract, the evidence of this will generally be found by the presence of signs of inflammation in the lower part of the tract.

Although less common, more interest attaches to cases with left-sided physical signs, owing to the fact that diverticulitis, with peridiverticulitis, frequently gives rise to signs and symptoms suggesting a lesion of the left tube or ovary. While the condition may occur during the child-bearing period, it is more usually a post-climacteric disease.

Inflammation is the commonest pathological change around the sac, and the accompanying inflammatory oedema and hyperplastic inflammation in the bowel wall lead to the formation of a definite tumour, while the formation of adhesions to the pelvic viscera adds to the difficulty in differential diagnosis. The development of a pyosalpinx after the climacteric, on the other hand, is very unusual, as the records of the gynaecological department of Charing Cross Hospital show.

The x-ray appearances after a barium enema are of considerable diagnostic aid, and further serve to distinguish the condition from malignant disease of the bowel, with acute symptoms superadded.

The treatment of these cases of diverticulitis is of very considerable interest, but space does not allow of its inclusion.

Symptoms suggesting Acute Pelvic Lesions accompanied by Shock.

In women of the child-bearing age the complications of ectopic pregnancy come first to mind, and seldom present difficulties in diagnosis or management. Some new diagnostic tests have been described within the last few years, but they do not materially aid in diagnosis.

One of these is called the phloridzin test. A positive reaction depends upon the production of glycosuria following the injection of phloridzin, and indicates only the condition of pregnancy. I have no personal experience of it, and two factors materially reduce its value in acute conditions. First, considerable time and the facilities of a laboratory are necessary for its performance. Secondly, after rupture and the formation of a haematocele the test becomes negative, according to some observers, even if previously positive.

Another is the "shoulder pain" test. Rubin has called attention to the occurrence of the same sign when gas enters the peritoneal cavity in the course of a tubal insufflation. It depends presumably on the presence of some irritating foreign substance, such as blood, in the upper part of the peritoneal cavity. It is an unreliable sign. While it may be found with ruptured ectopic pregnancy, yet the abdominal cavity may contain much blood and the sign be absent.

Cullen has described a sign which is known by his name, and, if found, is considered to be pathognomonic of a ruptured ectopic pregnancy. It consists of a bluish discoloration of the skin around the umbilicus, and has been noted from time to time by different observers. It is a sign which is only occasionally present, and I have not myself ever observed it.

The subject of the treatment of the gravid tube, whether by salpingectomy or by the more conservative salpingostomy, must still be considered an open question. It will presumably remain so until the etiology of ectopic gestation is known. In this connexion the increasing number of cases of repeated ectopic pregnancy reported in the literature is interesting.

The rare condition of haemorrhage into the ovarian tissue and the formation of a pelvic haematocele, which may accompany delay in ovulation, is only of academic interest. The etiology is unknown, and the differential diagnosis from ectopic pregnancy cannot be made prior to operation so far as I am aware.

A difficult differential diagnosis is presented when symptoms occur suggesting torsion of the pedicle of an ovarian cyst. It is well known that patients with an ovarian cyst may develop acute symptoms due to some other intra-abdominal or pelvic condition, and I recall three cases which well illustrate the point. In one of these the acute symptoms were due to acute haemorrhagic pancreatitis, in another they were due to volvulus of a portion of small intestine during early pregnancy, and in the third to acute appendicitis.

My experience leads me to believe that the importance of the urgent symptoms attending torsion of the pedicle

* A paper read in the Section of Obstetrics and Gynaecology at the Annual Meeting of the British Medical Association, Cardiff, 1928.

of a cyst is exaggerated. These symptoms are usually described as the onset of sudden abdominal pain, together with vomiting or other alimentary disturbances. On examination some degree of shock is found and muscular rigidity of the abdominal wall.

Analysis of the cases of actual or supposed torsion of the pedicle of a cyst which I have seen leads to the conclusion that the more urgent the symptoms of internal strangulation the less probably is the case one of a strangulated cyst, but more probably of some other intra-abdominal catastrophe, accompanied by the presence of an ovarian cyst.

The explanation offered that when at laparotomy a cyst is found which had undergone torsion the occurrence of the twist was gradual rather than sudden in onset is, in the absence of any clinical signs suggesting it, equally difficult of proof or disproof. It must remain an open

question until more is known concerning the mechanism of the torsion, which is certainly very obscure.

In conclusion, I wish to draw attention to two points only, which have impressed themselves upon me, and they are these: (1) the need for a thorough examination of the whole abdomen and pelvis in the matter of diagnosis, and (2) in treatment such an operative exposure as will allow of a thorough exploration of all the organs that may be diseased. In hospital out-patients we quite frequently see women with a small incision in the right iliac fossa through which an appendicectomy has been performed, still presenting a pelvic syndrome, and requiring a further operation on their pelvic organs. These "button-hole" incisions do not offer suitable exposure for the surgery of the female pelvic organs, and their use may be discontinued with advantage.

A CASE OF COMPLETE GASTRECTOMY FOR CARCINOMA OF THE STOMACH.

BY

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(With Special Plate.)

THE patient whose case is here recorded is a labourer, aged 44, who was under the care of Dr. Broughton of Batley; he was admitted to the Batley Hospital on May 24th, 1927. His complaint was painful indigestion, with loss of weight and appetite. He had been in good health up to two and a half years before, when the indigestion started. The pain came on within half an hour of taking ordinary food, was felt in the epigastrium, and gradually passed off before the next meal. At first the pain was relieved by lying down, and sometimes by pressure over the pit of the stomach. The attacks lasted some three or four weeks, and were followed by periods of several weeks of almost complete freedom from symptoms. During the attacks flatulence was a very troublesome feature, and in attempts to relieve himself of this by belching small risings of food occurred into his mouth; apart from this there was never any vomiting of food or blood, and no melaena had been noticed. The bowels were rather constipated. The last attack began in December, 1926, and was continuous up to the time of operation; it was during this period that his appetite failed and the main loss of weight occurred. He had lost about 1½ st. during this time.

On admission to hospital the patient was in fairly good condition, but anaemic and rather flabby. His weight was 8 st. Abdominal examination showed the abdomen to be thin and rather hollowed, and though there was nothing definitely abnormal on palpation, there was a suspicion of an ill-defined lump in the epigastrium. A diagnosis of carcinoma of the stomach was made, and it was thought it might have become implanted on a chronic gastric ulcer. Operation was advised and was performed on May 26th, 1927. The usual right paramedian incision was made, and a growth was found occupying the greater part of the stomach, which was small, thick, and nodular. There were thin adhesions to the pancreas, and several glands were noted along the lesser curvature, especially close to the oesophagus at the origin of the gastric artery. No secondary deposits could be felt in the liver or pelvis. It was quite obvious that nothing could be done to rid this man of his disease other than a complete gastrectomy, and I decided that it was worth while giving him his chance.

The pyloric artery was ligatured and two Payr's clamps applied to the first part of the duodenum. The duodenum was divided between the clamps and the two cut ends cauterized by heat, and the distal one infolded over the clamp; this was slipped out, the suture tightened, and then infolded by a second line of stitching. The gastro-colic omentum was divided along the whole length of the

stomach about 2 in. from it, and the lesser curvature was similarly treated, the gastric artery being ligatured at its origin from the coeliac axis; this enabled me to remove the last palpable gland. Fortunately there were very few of the pancreatic glands involved. The whole stomach could now be lifted up, giving a very clear view of the lower end of the oesophagus. A clamp was applied across the cardiac orifice of the stomach, and by using this as a retractor enough oesophagus could be drawn down to enable me to suture it with reasonable ease to the jejunum. The jejunum was drawn up in front of the transverse colon so that there was no loop left between the part selected for suture and the duodeno-jejunal flexure. The stitching was carried out in the same way as for gastro-enterostomy without clamps, the stomach being cut away little by little as the sutures were inserted. By using the stomach as a retractor until the suturing was practically finished no great difficulty was encountered in uniting the jejunum to the oesophagus.

The patient bore the operation well, and on returning to bed was put on to continuous rectal saline at once. He began sipping small quantities of water at the end of twenty-four hours, and the quantities were gradually increased with the addition of milk and tea, until at the end of ten days he was taking as much as he asked for. Solid food was begun in a fortnight, and steadily increased. He was up within a month, and eating ordinary food in small quantities and often. Although he had lost all desire for food before operation he was now thoroughly enjoying his meals, but had to take them slowly, otherwise he felt a sensation of distension, and almost as soon as he had finished one meal he was feeling hungry again. This is rather a curious occurrence, for we are led to believe that the sensation of hunger is due to gastric contractions.

I had this man treated subsequently with deep x rays, but I am unable to say whether it did him any good or not. He had a kind of lenteric diarrhoea for some months after operation, which gradually disappeared. The man is now (October, 1928) back at work, eating well, enjoying his food, feeling well, and apart from a little anaemia has a normal healthy appearance.

The pathological report on the excised stomach was kindly made for me by Dr. M. J. Stewart, and is as follows:

"The specimen as received consists of the entire stomach, with about 1 in. of the duodenum. The pyloric three-fifths of the organ is largely occupied by a deeply cratered, ulcerated carcinoma, measuring 4½ by 4 in. in its two chief diameters. The centre of the lesion is on the posterior wall, 2½ in. from the pylorus and exactly midway between the lesser and greater curvatures. The growth has extended across both curvatures so as to encircle the organ, only an inch or so on the middle of the anterior wall escaping. The lower margin of the tumour extends to within ¾ in. of the pylorus. The appearances suggest a primary carcinoma with secondary ulceration. The margins are much thickened, undermined, and overhanging, and the contour, while generally circular, is very irregular. The floor, everywhere obviously composed of growth, is irregularly nodular and ulcerated. Externally there are extensive dense adhesions in the lesser sac between the stomach in the region of the growth and the pancreas and retroperitoneal adipose tissue. Pale masses of growth can be seen beneath the serosa, but there is no