she came under treatment with relaxation of the bowels, and since then she had habitually passed watery motions. She has occasionally passed blood; this she has attributed to the hæmorrhoids. She has suffered from prolapse on and off for years. She has been troubled with sickness after food more frequently of late, but she seems to have been a chronic dyspeptic. These symptoms have been attended by progressive weakness, inability to do her work, and slight loss of flesh.

The patient was a thin, sallow woman, and complained of extreme weakness, frequent sickness, and constant diarrhoea. On examination *per rectum*, under an anæsthetic, well-marked mixed piles were found, and on the anterior wall, about 2 inches from the anus, a definite sessile papillary growth with broad base, which could be drawn down to the anus with a clamp. There were no signs of other visceral disease.

Operation.—On August 29th, 1893, the patient was anæsthetised, and the following operation was performed. The anus was forcibly dilated, a circular incision made at the junction of the skin and mucous membrane, and the mucous membrane and piles were freed from the external and internal sphincter muscles by dissection with scissors. Thus far the operation was the typical one performed by Mr. Whitehead for hæmorrhoids. The sphincters were now divided towards the vaginal wall to obtain increased space, the muscular and areolar coats of the rectum divided by a circular incision, and the dissection was carried upwards around the whole rectum for another $2\frac{1}{2}$ inches until a point above the limits of attachment of the growth was reached. The peritoneal cavity was not opened. The freed portion was then divided, and the bowel brought down and sutured to the cut margin of the anal skin with silk. The incision into the perineum was closed with two silkworm gut sutures, which also retained the anterior ends of the sphincters in apposition. A large tube was placed in the rectum to prevent the accumulation of flatus, and the wound was dressed with bichloride gauze.

The after-course was uneventful. Retention of urine necessitated the use of the catheter for a few days. The wound healed steadily. On the tenth day the deep perineal sutures were removed. After the eighteenth day complete control of the motions returned, and she got up. She steadily improved, and left the hospital well one month after the operation.

After a short holiday she resumed her work, which she has continued to do, and she and her medical attendant consider that she is stronger and better than she had been for years.

The growth removed was papillary in character with a broad base, occupying an area of 2 by $2\frac{1}{2}$ inches on the anterior wall of the rectum. Careful examination showed that it had not infiltrated the whole thickness of the rectal wall; in fact the muscle was scarcely affected, hence the prognosis is a comparatively good one.

As to the nature of the growth, microscopical examination shows it to be identical in structure with the ordinary polypoid growths or adenomata. Experience has shown, however, that such growths are common precursors of typical columnar epitheliomata, and therefore a guarded prognosis only can be made. In this particular instance the free removal of the tumour should, however, give the patient a good chance, whatever the actual nature of the growth may be.

The mode of operation adopted, however, is the point of interest in this case, and I think it offers the following advantages:

1. It leaves the sphincters as nearly as possible intact. If the growth were lateral or posterior, the posterior extremity of the sphincter might be divided towards the coccyx.

2. The union of the rectum to the skin is preferable to uniting it to a strip of mucous membrane left covering the sphincter flaps made when the anus is divided both anteriorly and posteriorly; and any existing piles are radically cured by the same operation.

As to the indications for such a procedure I take it that they consist in limited extent of the growth, and in the pre-existence of rectal prolapse after defæcation, this the cardinal indication for the complete Whitehead's operation for

hæmorrhoids, allowing the portion of the bowel brought down to the anus to be sutured there without undesirable tension.

CASE OF PERFORATION OF THE INTESTINE DURING ENTERIC FEVER TREATED BY LAPAROTOMY.

By ALFRED PARKIN, M.S., M.D. LOND., F.R.C.S.,
Senior Surgeon to the Victoria Hospital, Hull.

THIS case is of interest on account of the discussion on the operative treatment of perforations of the stomach and intestines at the Bristol meeting of the British Medical Association.

A female, aged 32, came under the care of my partner, Dr. Sherburn, on August 19th, 1894. She had been ill about a week with indefinite symptoms, but a few days previous to being seen diarrhoea came on, and continued throughout the illness. She was wildly delirious on the 20th and 21st, and on the 26th distinct rose spots appeared on the abdomen; the temperature remained at the level of 103° , the pulse 130, and the respiration varied from 26 to 30.

The condition of the patient remained the same until September 3rd, which would correspond to the end of the third week, when she was suddenly seized at 10 A.M. with acute abdominal pain, continuous, and referred to the umbilicus. At 10.15 A.M. she was sick, and when seen half an hour later she was in a collapsed condition, with face drawn, lips blue, and extremities cold. The abdomen was no longer doughy but hard, less distended, and tender to touch. The bowels were opened twice involuntarily, the motions being formed, and it seemed as though the contraction of the abdominal muscles had been the cause of this. The liver dullness, which before had extended from the sixth rib to the margin of the thorax in the upper right, had now disappeared. Pulse imperceptible, respirations quick and shallow, temperature 101° . An injection of morphine and atropine was given at once, and every effort made to overcome the collapse. These efforts were so successful, that on returning at noon the patient seemed as well as before the perforation, only the absence of liver dullness and slight abdominal rigidity indicating what had happened.

Chloroform was given, followed by ether, and a small incision made below the umbilicus. On opening the peritoneal cavity a considerable quantity of gas escaped, without much smell, followed by a few ounces of turbid yellow fluid. The small intestine was traced throughout its whole length, the position of many ulcers being indicated by the brilliant injection and the surrounding thickening of the intestinal walls. About 2 feet from the cæcum there was a large ulcer, the floor of which displayed a small perforation not bigger than a pin's head, through which the intestinal contents were oozing. The ulcer was folded longitudinally on itself and sewn up with a Lembert's continuous silk suture, without difficulty on account of the congested state of the gut, which would scarcely hold the silk. No other perforation being found, the peritoneal cavity was well irrigated with weak carbolic, a Keith's tube inserted into the pelvis, and the wound sewn up.

On recovering from the anæsthetic the patient said she had no pain, and was quite comfortable; in every way her condition was better than before the operation. She was sick twice during the night, and the next morning her pulse had fallen to 120, the temperature was normal, the abdomen flaccid, not distended, and moving readily with respiration. She was fed with nutrient enemata every four hours, and with peptonised milk, beef-tea, and brandy by the mouth. Her condition remained quite satisfactory, with no symptoms of peritonitis until the third night after the operation, when she again became delirious, the temperature rising to 102° . At 1 A.M. on the 6th she tried to get out of bed, and then complained of the abdominal pain having suddenly returned. The abdomen became rapidly distended, collapse supervened, and death took place ten hours after the return of the pain, exactly three days after the operation. Before death the temperature rose to 106° .

A very limited *post-mortem* examination was allowed. There was no peritonitis around the sutured gut, but close to the cæcum there was a large ulcer with an extremely thin floor devoid of peritoneum, and around this there was evident peritonitis. The portion of the gut operated upon was quite tight, and withstood considerable pressure from injected fluid. The ileum for 3 inches close to the cæcum was ulcerated all round, so that only islets of mucous membrane were left. It was not possible to remove the whole of the intestine, large and small, to make certain that no second perforation had taken place, but none could be found by pulling out various portions of the intestine through the wound.

This case adds one more to the list of 20 such cases which have been operated upon, with so far only 1 recovery. There is no doubt that perforation in the course of enteric fever is almost invariably fatal, and any recovery from such a complication can only be regarded in the light of an accident, unless surgical treatment be adopted. The obscurity in the diagnosis is often great, but in this case the symptoms were pronounced.

Although the patient was in the height of a severe attack perforation was evidenced by sudden collapse, alteration in the character of the abdomen, and by complete disappearance of the liver dullness. Curiously enough, the perforation causing these symptoms could only be regarded as of the smallest possible size. The treatment adopted in the first

place to overcome the shock was so successful that no one, on seeing the patient two hours after, would have diagnosed the condition except by careful examination of the liver dulness. The operation itself was conducted under light anæsthesia, the patient herself saying afterwards that she was conscious most of the time of what was going on, and it did not in any way depress the patient. Closure of the perforation by a purse-string suture was out of the question on account of the friability of the intestinal walls; longitudinal suture only was possible. The liver dulness was noted five hours after the operation to have returned down to a point one inch from the margins of the ribs.

The rapid onset of peritonitis, following an attempt to get out of bed, pointed to the conclusion that a second perforation had taken place; but, as none was found at the *post-mortem* examination, one must conclude either that it had been overlooked, or that the peritonitis had started from the second ulcer, from the base of which the peritoneum had already disappeared. The condition of the sutured bowel was in every way satisfactory, and it would have doubtless been better to have sutured the second ulcer at the same time, or to have scarified its base; the serious condition of the patient, however, necessitated a speedy termination of the operation.

The most noticeable feature at the operation was the appearance of the intestine, each ulcer being plainly indicated by a zone of brilliant injection, corresponding to its base, in the centre of a thickened oedematous portion of the gut, a condition quite different from the usual *post-mortem* appearance.

Although the patient was prostrated by a three weeks' illness, there was nothing in the abdominal wound, or in the sutured portion of the gut, to indicate any want of repairing power. The return of the delirium indicated that the course of the pyrexia had not yet ended; and the extensive ulceration of the intestine was a further proof of the intensity of the attack.

It is much to be regretted that, in a case promptly diagnosed and operated on only two hours after perforation had occurred, the result should have been so disappointing.

A FURTHER NOTE ON THE TREATMENT OF ABDOMINAL HYDATID DISEASE BY EVACUATION WITHOUT DRAINAGE.

By C. J. BOND, F.R.C.S.,
Surgeon to the Leicester Infirmary.

THE BRITISH MEDICAL JOURNAL for April 11th, 1891, contains an account of a method of treating abdominal hydatid cysts by incision and evacuation of the cyst contents, and the return of the adventitious cyst into the abdominal cavity without drainage. Since that was written Dr. Thomson, of Brisbane, and Dr. Gardner, of Melbourne, have reported cases, and the method seems to be recognised and practised in Australia. Judging, however, from the absence of published reports, I do not think that many cases have been so treated in England, and, as I feel convinced that the principle is sound, I am induced to record the following case which I have lately treated, and which gives further evidence of the safety of the proceeding:

A short time ago I opened the abdomen of a male patient, aged 36, who had suffered for some years from a swelling the size of a coconut in the right flank; the patient was in other respects healthy, and the symptoms produced were those of pain and pressure. One large and two smaller hydatid cysts were first found; the larger cyst contained clear fluid and daughter cysts, the smaller ones pultaceous material with chalky deposit; these three omental cysts were removed entire, the adhesions to colon and mesentery, though extensive, being separable. On further exploration, two more cysts were found in the liver on the under surface, one near the anterior edge and a larger one deeply placed near the transverse fissure. After packing the peritoneal cavity around, both cysts were incised and the pultaceous laminated material which formed their degenerated contents evacuated; some of the chalky *débris*, however, was very adherent to the

inner wall and was left; the interiors of the cysts were then thoroughly wiped out with carbolie lotion (1 in 20), rubbed over with iodoform, and left quite dry. No attempt was made to close the opening in either cyst, and the abdominal wound was closed without drainage. Recovery was rapid, the temperature remaining normal.

As I previously ventured to point out, the advantages of this method are very great; not only can deeply placed cysts be thus dealt with, which it would be very difficult or impossible to drain, but, in addition, a primary union and a rapid recovery are substituted for a tedious convalescence, with all the risks attending the drainage of a large cavity, and an open wound; the experience of this case further shows that not only may living cysts be so treated, but also those in which, following the death of the parasite, the contents are partly solidified.

At the present time it is no doubt safer to treat by the older method cysts in which suppuration has occurred, but even in these it may eventually be possible to thoroughly scrape and antisepticise the interior, after evacuation of the pus, and then to close the wound.

In conclusion, also, I would suggest, in suppurating cysts, or in abscess of the liver, that an exploratory abdominal section should be the first step, in preference to the introduction of a needle, for in this way it is sometimes possible to ascertain and locate the presence of a small area of adhesion to the diaphragm or abdominal wall over a suppurating cyst or abscess, and the latter can then be incised and drained through this area by means of a second incision between the ribs or through the abdominal wall.

Since this was written I have operated on two more cases of liver hydatids by the method of evacuation without drainage, with rapid convalescence in both instances.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

AN OPERATION FOR THE RADICAL CURE OF HERNIA.

MR. GREIG SMITH, in pointing out the difference of the kinds of adhesions, has explained the reason why a most unscientific operation which I do for the radical cure of hernia gives me such excellent results. Briefly described, when the operation is deliberately undertaken I make a vertical incision, and take great care to keep outside the peritoneum. Then search for the ring, invaginate the sac on my finger, keep it there by means of a large Spencer Wells forceps, and stitch up in a jumble the opening in the abdominal wall (namely, muscle, fibrous tissue, and peritoneum; I like my needle to scrape the bone). then the skin incision. Such is the operation I do in a femoral hernia. In a strangulated femoral hernia I insert a flat broad and thick director through the opening on the femoral vein side, and pass it right round the sac, keeping outside if I possibly can (I never nick Gimbernat's ligament), reduce the hernia, and stitch up in the above way.

In inguinal I do the same thing, that is, keep outside the sac, do not bother about separating the sac from the cord, pass the director into the abdomen on the outer side of sac, reduce the hernia, ligature the neck of the sac, and leave it lying on the inner side of the canal, so as not to squeeze the cord so tightly, and stitch up carefully in the same clumsy fashion. Judging from results the operation has been very successful in my hands. I have done nineteen (femoral) radical cures and seven strangulated herniæ (four femoral and three inguinal), with one death, which was due to gangrene of the bowel. None of these patients wear trusses, as they do not need them. I have done these operations during the last three years, and got the hint for this clumsy fashion of stitching from Lawson Tait and Martin (of Berlin), both of whom respect the peritoneum very little. All these operations were done without antiseptics, and some in very unhygienic surroundings.

Ashton-under-Lyne.

FREDERICK W. MANN, M.B.