opened. At the first inspection there was little visible beyond a scratched appearance of the peritoneum over the situation of the splenic flexure. A bruised condition of the descending colon below this was apparent, but it was not extensive, and no abrasion or tear of the peritoneum was visible over it, nor was there any alteration in the consistency of the part. Some emphysema could be felt, however, in the descending mesocolon, and before this it had been found that a mounted sponge when passed into the splenic region, became soaked with dark fluid which was of small quantity but of a distinctly faecal odour. Gentle compression of the descending colon with the fingers whilst they were moved upwards forced some bubbles of gas and a little faecal fluid through the minute lacerations which had previously been noted. There was no doubt that a rupture of the gut behind the peritoneum was present with a communication directly into the peritoneum through these lacerations. A second incision was made backwards through the abdominal wall at a right angle to the primary cut just below the ribs, and further incision of the peritoneum to the outer side of the flexure gave access to a space containing soft faeces, which had escaped from a hole in the bowel the size of a penny at or below the splenic flexure of the colon; the space containing the extravasated faecal matter extended upwards into the retroperitoneal tissue behind the spleen and could hardly be cleansed, for the faecal matter was ground into the cellular tissue. The opening in the bowel was closed with interrupted silk sutures which did not enter the lumen, the torn edges being inverted. The peritoneum which had been packed off during the treatment of the bowel, was now cleansed, and some ounces of blood-stained offensive fluid removed from the pelvis. The wound was partly closed, the peritoneum being sutured off from the parts affected by the injury, a tube was passed into the splenic region, a plug placed over the sutured portion of bowel and brought out at the posterior extremity of the transverse incision. The operation was well borne.

After-History.

On the third day the evening temperature rose to 101° , and there was a thin discharge from the wound of a faecal smell and of a brown colour.

As the temperature was still above normal— 100° to 101° —and the discharge offensive, an injection of antitoxin serum 25 c.cm. was given into the axilla on the 23rd.

On the 25th the stitches were removed, and the anterior part of the wound dressed with collodion and gauze. There was a definite faecal discharge. The amount of pus in proportion to the faecal matter appeared to have increased, and although the result of the serum injection had apparently lowered the temperature for a day still by the evening of the 26th it had reached 101.5° , and 25 c.cm. of polyvalent serum was given. Apparently as a result of this the temperature fell to 98.8° , rising to 100° on the following evening, when the dose was repeated. The temperature after this became normal, gradually falling, whilst the patient improved considerably in her general health, and the wound cleaned in a remarkable manner. On August 19th there was no longer any faecal discharge from the wound, which had quite closed on August 31st.

She left the hospital well on September 6th.

The chief symptoms on which the diagnosis of a rupture of the large intestine following injury are based are, as a rule, the same as those which accompany a similar injury to the small intestine. It is true that emphysema of the abdominal wall is occasionally met with both in rupture of the large bowel and in rupture of some parts of the duodenum. This, however, is not a symptom on which any reliance can be placed, and arises mostly when the rupture is behind the peritoneum and not into the cavity of the peritoneum. In more than one instance the mesentery of the colon has been felt at the operation to contain some gas; but our object should be to operate before this can be dispersed in the cellular tissue or felt outside. The excessive tenderness along the line of the descending colon was regarded as an important sign, and from the description of the operation there can be no doubt that it was an indication of the irritating character and passage of the fluid which was removed from the pelvis. The principle of the operation had to be somewhat changed from the usual one, for we could not depend on primary union of the contused wound in the muscular wall of the bowel, and therefore it was necessary to provide as far as possible that the faecal matter should escape externally if the stitches gave even to a limited extent. The effect of the antitoxins is worthy of attention.

THE Swedish National League against Tuberculosis raised £12,500 during the year 1905-6 by the sale of badges of benevolence.

THE late Mr. Francis Abel Smith, of Ashby-de-la-Zouch, whose will has now been proved, left £1,000 to the Nottingham General Hospital.

PERFORATED GASTRIC ULCER: OPERATION: RECOVERY.

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THE following case appears worthy of record, since it presents several points of interest with regard to diagnosis and the treatment adopted:

History.

A woman, aged 40, unmarried, had for some years suffered occasionally from indigestion, but had never shown symptoms suggestive of gastric ulcer.

On September 16th, 1907, she complained of slight indigestion, which passed off. On September 21st, at 8 p.m., she had supper, consisting of meat and potato pie; at 1.30 a.m. she complained of acute abdominal pain situated around the umbilicus. When seen at 6 a.m. she was still in acute pain, referred to the umbilicus and the left iliac fossa; there was slight pain on palpation in the epigastrium, but it was more severe in the left iliac region. The liver dullness was present, and the left iliac fossa appeared less resonant than the rest of the abdomen. With combined auscultation and percussion the stomach appeared normal. She appeared to be decidedly ill, and the facies suggested acute abdominal trouble. She was given liq. morph. hydrochl., m x , every three hours, and was seen again at 6 p.m. Evidence of general peritonitis was then present, and there was considerable more resistance in the right iliac fossa than in other regions of the abdomen; that region was also dull on percussion.

Operation.

At 8.30 p.m., under chloroform, the abdomen was opened by a mesial incision, with its centre at the umbilicus. There was a quantity of serum present, which escaped on opening the peritoneum; the appendix, tubes, and ovaries were all normal. The incision was extended upwards; large flakes of lymph were present over the stomach, and a perforated gastric ulcer was discovered. The ulcer was situated at the cardiac end of the stomach on the anterior surface of the lesser curvature; it extended up to the commencement of the oesophagus and was about $2\frac{1}{2}$ in. in diameter, the perforation being about the size of a pea. The parts were carefully swabbed and attempts were made to close the ulcer, but each time the sutures tore through. Looping up the healthy stomach over the ulcer or excision seemed to be impossible on account of its large size, in consequence the great omentum was folded up and stitched rather inadequately over the ulcer. A large drainage tube was inserted and the abdominal wall hastily sutured owing to threatened collapse of the patient.

Progress.

Olive oil, a pint, followed later by a turpentine enema were given each day by the rectum, with no result, until September 25th, when the bowels moved well. From that date nutrient enemata were given every six hours. On October 1st she was allowed one teaspoonful of water by the mouth. On October 4th she had meat juice by the mouth, and the quantity was gradually increased. On October 10th she was taking beef tea, 3ij , every six hours, and on October 16th she was given milk, 3j , with barley water, 3ij , every four hours, and Benger's food; from then onwards the food was gradually increased until on November 14th she commenced ordinary diet; the wound had then quite healed.

The case presents the following interesting features:

1. *The movable dullness on percussion* noted at one time in the left iliac fossa, and at another time in the right iliac fossa, making the diagnosis difficult, but Sargeant has called attention to this point in cases of perforation of the stomach.
2. *The size and situation of the ulcer.*—According to Osler the largest ulcer recorded is that reported by Peabody, which measured 19 by 10 cm.
3. *Closure of the perforation.*—The imitation of nature in closing the perforation by means of an omental graft has been previously recorded by H. S. Clogg in the BRITISH MEDICAL JOURNAL, 1905, and in cases similar to the above seems to be the most rational method.
4. *After-treatment.*—During the first week, when no food was given by the mouth, the patient exhibited the greatest endurance, and at the end of that time she stated that if food was injurious to her she could manage quite well without it for a few days.