an uncontrollable desire to go to stool and much tenesmus. She had been under medical treatment for years, and all the recognized forms had been tried. On examining the bowel with the sigmoidoscope I found the mucosa quite normal in appearance. In the middle of the sigmoid, however, the bowel was found to be firmly fixed and angulated, apparently by adhesions. The uterus was also found to be markedly retroflexed. It seemed probable that the tenesmus from which she suffered was due to the condition of the uterus, and a gynaecologist who saw her with me confirmed this view.

I opened the abdomen and found a number of firm adhesions binding down and kinking the middle of the sigmoid flexure; these were divided and the wound left in the peritoneum sewn up. The uterus was also drawn forward and anchored to the abdominal wall so as to correct the position.

The patient made a good recovery, and all her symptoms have now completely disappeared. When I last saw her some months after the operation she had put on weight, her complexion was good, she no longer had any mucus in the stools, and she told me that she never remembered feeling so well and fit.

Though most of the cases of true colitis (that is to say, when a chronic inflammation of the mucosa of the colon is found) get well as the result of medical treatment and lavage, there are nevertheless a certain number which either fail to get entirely well or suffer from frequent relapses. These cases are, I believe, best treated by appendicostomy, which enables the patient to keep the colon efficiently washed out daily with the minimum of inconvenience, and the symptoms quickly clear up.

The most difficult cases to treat are perhaps those in which there is a general atony of the bowel combined with ptosis of the colon. Stitching up the colon is quite useless, as it is unreasonable to expect any stitches to hold up the stomach and transverse colon permanently when the natural supports have not been sufficient to do so. It is impossible to deal directly with the condition, but I have had very satisfactory results in such cases from appendicostomy, and the fitting of a belt to support the abdomen. The object of the operation in such cases is to prevent the stagnation of the faecal contents of the colon, which is the chief cause of trouble, and at the same time by the introduction of suitable peristaltic stimulants to improve and restore the muscular tone of the bowel wall.

The following well illustrates this type of case:

Mrs. B., aged 32, a married lady, was sent to me by her doctor suffering from severe chronic colitis. There was a history dating back twelve years, though the symptoms had only been really severe for the last four years. She always felt ill, and had a chronic aching pain in the left side of the abdomen. She was always very constipated, and had to take large doses of aperients, and this often without success. The stools contained mucus, and often large casts over a foot in length. She had been treated for long periods by the usual remedies, and had on different occasions consulted several well known physicians, but without obtaining any relief from her symptoms.

Examination showed an atonic condition of the bowel, and chronic inflammatory changes of the mucosa. There was also well-marked ptosis of the transverse colon.

I operated, and on opening the abdomen found the colon much dilated and thin. There was also considerable enteroptosis. Appendicostomy was performed, as the only alternative seemed to be removal of the colon.

The colon was subsequently irrigated daily with warm water (at first in small quantities) to which a teaspoonful of ox bile was added. She rapidly improved in health, and learnt to wash out the bowel for herself. The mucus entirely disappeared from the stools, her health improved, and the bowels acted without any aperient being used. During the next six months she put on 2 st. in weight, and when I last heard from her, about nine months after the operation, she was quite well, and although on my advice still washing out the bowel, was quite free from any of her old symptoms.

Appendicostomy is an operation followed by excellent results in many of these cases, but it is not a panacea for all cases of so-called chronic colitis any more than is lavage. It should only be performed in suitable cases, and that can only be done if we first ascertain the cause of the symptoms. I have seen cases in which appendicostomy has failed even to relieve the symptoms because there was some obstruction or other lesion which had not been detected.

I do not wish it to be thought that I am advocating operation in all cases in which there are symptoms of chronic colitis. I think operation should only be resorted to after a careful trial has been given to medical treatment. But the important thing is to ascertain the cause of the symptoms by a careful examination aided whenever possible by the use of the sigmoidoscope, as it is useless treating a case by medical measures where there is an obstructive lesion in the colon, or a chronically inflamed

and thickened appendix. And, in any case, it is not satisfactory to institute treatment without knowing the cause of the symptoms.

ENTEROSPASM: OPERATION: DEATH.

By VAUGHAN PENDRED, M.D.DURH., F.R.C.S.ENG.

COVENTRY.

MR. C. W. DEAN'S case of enterospasm reported in the *JOURNAL* of March 13th recalls a similar case I had under my care four years ago, which ended fatally, and on which I obtained a partial autopsy:

The patient was a querulous, excitable, grey-haired little woman aged 57 when I first saw her in October, 1904. She was fat and healthy-looking. For the preceding three years she had suffered from time to time from colic with vomiting and diarrhoea. Latterly these attacks had become very frequent and severe. The tongue was coated. The urine showed a trace of albumen, and she complained of frequent micturition. During the next two months, in spite of energetic treatment, she had much colic and some emesis, and had plainly emaciated. A copious bleeding from the rectum occurred about this time.

In January, 1905, I sent her to Guy's Hospital, where some improvement took place during her month's residence. An x-ray photograph of the abdomen was negative. Movable right kidney was diagnosed and the wearing of a belt advised.

Month after month she continued to waste, and had constant vomiting attacks. Constipation alternated with diarrhoea, which latter somewhat relieved her pain.

In July, 1905—or ten months after my first notes—she was nearly bedridden with colic, coming on every few minutes, accompanied by tremendous borborygmi. Visible peristaltic waves passed across coils of intestine from left to right every few minutes, as though the intestine were endeavouring to overcome some obstruction. By the end of this month her condition was pitiable, and I had to keep her constantly under the influence of morphine. The pain was almost constant night and day. The vomit now became stercoraceous, hiccough supervened, and the bowels were confined. In short, the symptoms pointed to intestinal obstruction.

On July 29th I opened the abdomen below the umbilicus, but at first could find nothing amiss. Some feet of small intestine, distended but healthy looking, prolapsed through the wound. At one point the distension of the gut suddenly ceased, and the distal portion was flat, toneless, and of a paler colour, so that I thought that I had discovered the obstruction that I sought. Whilst I was considering what I would do next, the collapsed gut began to fill out again just as it had appeared to do through the abdominal wall. In order to return the gut it was necessary to incise a prominent coil, from which gas and foul liquid faeces escaped.

Three days later her condition was as bad as ever. The gurgling, peristalsis, pain and sickness, with occasional haematemesis, being nearly continuous. She died in the middle of September, emaciated to a skeleton, as she was unable to take food for many days. The peristaltic waves were a marked symptom up to the last moment of her life.

A *post-mortem* examination of the abdomen was all I could obtain leave to make. Every organ, though wasted, was macroscopically healthy. The intestine was partly opened up, and presented a normal appearance. Portions of the organs were sent to a London pathologist, who confirmed my opinion of them.

This case parallels Mr. Dean's in many particulars. Both patients had suffered from abdominal pains, vomiting, and bowel trouble for some years. The appearance of the ileum at the operation was similar. In Dr. Ashe's and my case the flattened gut "livened up" under observation. Anorexia and utterly uncontrollable vomiting, with occasional haematemesis and melaena, were such prominent symptoms in my case, that they point to a profound toxæmia, and not merely to a disturbance of innervation of the intestine.

FISTULAE BETWEEN THE STOMACH AND BILE PASSAGES, ETC.

By ALEXANDER DON, C.M., F.R.C.S., M.A.,

SURGEON, ROYAL INFIRMARY, DUNDEE.

THE CASES of unusual fistulae in the *JOURNAL* of May 1st by Mr. Mayo Robson make one think that the unrecorded cases may be more numerous than would be expected, and the following three may be of some interest:

M. L., aged 32, a multipara, whom I saw with Dr. Lowson on June 17th, 1899, had the following history: From November, 1898, she had repeated attacks of biliary colic, which developed in intensity till April 5th, 1899. The vomit was at times

bilious and the pain was intense, an attack usually lasting for more than a week. The most severe attack was in April, and at that time she was confined to bed for a fortnight, and was extremely ill; but, owing to her condition—she was then in the seventh month of her pregnancy—operation was declined. The abdomen was noted to be unusually large. On the morning of June 18th she had what seemed to be the beginning of another attack, and an opiate was given to relieve the pain. This subsided, but next morning her doctor was summoned early and found labour apparently progressing normally, though the patient was in rather a collapsed condition. After the birth of the child haemorrhage continued very freely, and I was sent for. On my arrival the patient was moribund. On examination by the vagina I discovered a second child lying high up in the uterus, which was quite lax. The child was turned and delivered without any difficulty; but the uterus did not contract, and was found to be firmly fixed to the liver. No manipulation could free it. There was no question of its rupture, as the wall could be felt distinctly, and the hand passed up till the liver was reached. The patient died from loss of blood shortly after the delivery of the second child. No *post-mortem* examination was allowed.

The probable course of events in this case was gall-stone colic with inflammation, and in April a fistula had been formed into the colon or duodenum, and relief had been obtained at that time; but so much inflammatory adhesion had occurred that the uterus must have then become fixed to the colon or liver. At any rate, after this attack she was comparatively free from pain till her confinement in June, when the uterine contractions again caused a semblance of biliary colic.

The second case was a farm servant, J. C., aged 43, who consulted me in April, 1902, about an attack of indigestion with extreme pain. The pain always followed ingestion of food, reaching its greatest intensity about three hours after eating, and being relieved by complete emptying of the stomach by vomiting. I advised operation, but he would not at the time consent, and he was treated by dieting and bismuth carbonate, under which he improved considerably and was able to resume work. In June of the same year the pain recurred, and there was severe haematemesis on the 12th of that month, which so alarmed him that he consented to operation. At the operation the stomach, from the middle of the lesser curvature to the pylorus, was found to be firmly adherent to the under surface of the liver. When these adhesions were freed a large opening was found in the anterior surface of the stomach near the pylorus, and a large eaten-out cavity in the liver from which there was persistent bleeding. This cavity measured 2 in. by 1 in., and was about 1½ in. deep. It was packed with iodoform gauze. The opening in the stomach was closed, and a drain left in the upper angle of the abdominal wound. The patient died next day. The condition was one of gastric ulcer perforating after adhesion to the liver.

The third case was seen in consultation with Dr. Macdonald of Dunkeld in November, 1908. Miss J., aged 43, had suffered from indigestion when in Ireland twelve years previously. In October she began to vomit a dark-coloured fluid. All food by the mouth was stopped, but the vomiting still persisted, amounting to several pints daily. No drug had any effect, and she got very weak and emaciated. Malignant obstruction about the pylorus was diagnosed, but very little beyond a marked resistance to palpation could be made out. The puzzling thing was the amount of fluid which must be returning through an obstructed pylorus, and which seemed to be pure bile. An alternative diagnosis was gall-stone obstruction by ulceration and blocking of the duodenum, and it was only at the operation that the diagnosis was cleared up. The gall bladder was found adherent to the front of the stomach 1½ in. above the pylorus, and the pylorus felt hard and fixed. The patient's condition was so poor that a posterior gastro-jejunostomy was performed. She rapidly recovered, and was enjoying light diet and sitting up in a fortnight. She then had another attack of vomiting, with marked nervousness and sleeplessness. This came on always at night; and, as nothing was found in her condition to account for it, she was allowed at her own request to go home, where she again rapidly recovered, and is now quite well, and able to attend to her household duties.

In this case the ulcer may have been gastric, and have penetrated after adhesions into the gall bladder, or it may have been biliary from gall stones, and ulcerated into the stomach. In either case the condition set up pyloric inflammation and thickening with obstruction, which was relieved by the gastro-jejunostomy. It is quite likely that the inflammatory condition at the pylorus may have subsided later and the pylorus again become patent; but, in any case, the proper treatment at the time seemed to me to be a gastro-jejunostomy. There was not much matting about the bile passages. The gall bladder adhered only at one point where the fistula existed, and nothing was discovered elsewhere to lead one to think that this case was originally one of gall stones rather than of gastric ulcer.

A FATAL CASE OF ACUTE VOLVULUS OF THE ILEUM.

By S. E. DENYER, C.M.G., M.D., M.A.CANTAB.,
F.R.C.S.ENG.,
HULL.

I AM indebted to Dr. W. A. Bryant for giving me the opportunity of seeing and recording this case, which is of interest from a diagnostic as well as a forensic point of view.

History.

The patient, a man aged 28, a fitter, went to bed on the night of April 29th apparently in good health. He had done an ordinary day's work, and had not complained of any ill-health. At 3 a.m., while in bed, he was suddenly seized with acute abdominal pain and vomiting. This continued until 8 a.m., when Dr. Bryant was sent for. He saw the patient at 8.7 a.m., and found him in a state of collapse, pulseless, and with no audible heart sounds; respirations were five or six a minute, and spasmodic in character; the pupils were dilated. He gave a hypodermic injection of strychnine and digitalin, after which the pupils contracted, but there was no other reaction. The patient died at 8.15 a.m.

Dr. Bryant was told that the patient had had attacks of pain in the chest and back for some time, and his wife had recommended him to go to a doctor, but he had refused. Otherwise he had been healthy.

Necropsy.

The body was that of a well-nourished man, looking about the stated age. There was no sign of any external injury. Rigor mortis was well marked. The muscles were found to be healthy, normal in colour, and well developed.

Heart.—Muscle and valves healthy, no sign of disease in the coronary arteries. A small quantity of clear fluid in the pericardial sac.

Lungs.—Some oedema at bases, and on the left side some old pleurisy, otherwise healthy.

Thoracic aorta healthy; no atheroma.

The brain and meninges, as well as the arteries of the brain, were healthy.

Abdomen distended; on opening the abdominal cavity a large coil of intestine was found presenting. This coil was placed vertically, and was about 20 in. in length. It was very much distended, being about the diameter of an ordinary man's coat-sleeve, and was of a deep purple colour, almost black. At first, on account of its size and position, it was thought to be the transverse colon much dilated, but closer investigation showed that it was the ileum in an abnormal position. There was no peritonitis, nor any sign of perforation or gangrene. The stomach was collapsed and empty, excepting for an ounce or two of fluid contents, consisting of watery mucus with no unusual smell or appearance. The oesophagus and duodenum as well as the stomach had no sign of inflammation, corrosion, ulceration, or perforation; the mucous membrane was pale, but otherwise normal. There were no adhesions in the neighbourhood of these organs.

As the *jejunum* passed into the ileum it was found to become congested and distended, becoming more so at its lower part. The ileum was distended throughout its whole extent, but mostly in its lower two feet, which presented the appearance described above. The peritoneum of the posterior abdominal wall on the right side, as it left the root of the mesentery, had a dragged appearance, and the mesentery in the neighbourhood of the caecum was twisted on itself. On opening the ileum it was found to contain a large quantity of fluid faeces, and its walls were black with congested blood. One peculiarity noted was that this area of intense congestion suddenly ceased at the ileo-caecal valve; the mucous membrane of the caecum was very pale but otherwise quite normal in appearance. On the other hand, the congested condition of the ileum gradually lessened above. There was no foreign body in the intestine. The large intestine was very contracted and pale, and seemed smaller than normal, and this contracted appearance was common to the whole of the large bowel. The appendix was healthy. It was situated in the right iliac fossa, where the caecum was also found in its usual position. There was no evidence of any congenital maldevelopment. Meckel's diverticulum was not found. There was no sign of internal hernia in any part of the abdomen. The superior mesenteric vessels were normal in appearance, and there was no sign of portal thrombosis or embolism. The pancreas was healthy, and there was no sign of fat necrosis. The kidneys and suprarenal bodies were healthy. The bladder was contracted and the urine contained no sugar. The liver and gall bladder and its ducts were healthy, and there were no adhesions around these parts. The abdominal aorta and inferior vena cava presented no sign of disease. The spleen was rather large but otherwise was normal. There was no fluid in the abdominal cavity.

From the history of the case and the *post-mortem* appearances, it is evident that it was one of acute volvulus of the ileum. The constriction was definite below at the ileo-caecal valve; above it was difficult to say where the gut was gripped, as no sign of constriction could be found