died from ruptured gastric ulcer in twenty hours from the first onset of symptoms. For three days preceding her rupture I had seen her and diagnosed gastric ulcer, her chief symptoms being pain after taking food, relieved by vomiting, and pain on pressure over the cardiac end of the stomach.

Rupture occurred suddenly on October 24th, 1895, and I saw her two hours after. Her condition then was as follows: Her face, usually rosy, was quite pale; features pinched; pulse 90, feeble, and feeling empty. She was lying on her back in bed, hardly daring to move, cold and collapsed. The abdominal muscles were perfectly rigid. On percussion the whole abdomen was hyper-resonant, the liver dullness being absent. Pain was caused by deep pressure on any part of the abdomen. She told me that when the symptoms commenced she was sitting still in a chair, and lifted her arms for some purpose, when suddenly she felt a violent pain in the abdomen, which made her sink down into the chair and cry out, "I am dying!" She screamed with pain for several minutes, then tried to vomit, but could not do so. The pain commenced in the left hypochondriac region, and rapidly spread all over the abdomen.

The only food which had been taken into the stomach was some beef tea some two hours before. I decided at once that the case was one of ruptured gastric ulcer and advised abdominal section without delay. Dr. Barton, who saw her with me, agreed in the diagnosis and treatment proposed. Mr. D. Day gave ether, and the operation was commenced four and a half hours after the first onset of symptoms.

The patient was very cold, and was wrapped in hot blankets upon the operating table. An incision about 3½ ins. long was made 1 in. to the left of the middle line, commencing at the cartilages of the ribs and extending down towards the umbilicus. The reason for making it to the left of the middle line was to allow the entire organ to be more easily withdrawn from the abdomen.

Directly the peritoneum was opened the contents of the stomach began to well up into the wound. Beef-tea and a few curds of milk could be recognised. The stomach was immediately found and drawn completely out of the wound. The rupture was a round punched-out hole, about ½ in. in diameter, situated on the anterior surface of the cardiac end about 1 in. above the attachment of the transverse gastro-colic omentum. I tried to wash out the stomach, but this failing I contented myself with squeezing out its contents through the ulcer.

The perforation was then closed. A curved needle threaded with catgut was passed so as to take up only the peritoneal and muscular coats in the form of Lembert's sutures in such a manner as to cover in the ulcer. A second row of sutures was now put in so as to bring into apposition two surfaces, each of which was 1 in. in breadth, and extended in both directions 1½ in. beyond the perforation.

The stomach was then replaced and the washing out of the peritoneum with boiled water commenced, cooled to a temperature of 105° F. With the usual siphon irrigator and two glass tubes passed in different directions, a stream of water was constantly kept running in through the irrigator and out at the glass tubes. In this way every possible corner was reached, and the washing continued until the water returned quite clear from each point before moving the tubes to another. About 20 pints of water were thus used. A drainage tube was left in and the wound closed. The operation lasted forty-five minutes. Shock was severe, and was treated with warmth and brandy enemata. As in the first case, the patient on coming round from the anæsthetic expressed herself as being free from pain, and during the night slept a good deal.

No food was given by the mouth for forty-eight hours, after which the administration of liquids caused no symptoms. Her convalescence was retarded by the formation of an abscess in the left pleural cavity, which was opened and drained from the back. However, at the present time she is strong and well and can walk several miles, and has none of her old symptoms.

CASE III, a servant girl, aged 22, who was somewhat anæmic and had had dyspepsia for some time, was suddenly seized with violent pain in the abdomen whilst at her work; was sick once, and afterwards retched and tried several times to vomit but without success.

She was seen by Mr. Shepherd, of North Walsham, and by Mr. Hugh Taylor, of Wroxham; the diagnosis of ruptured gastric ulcer was made. When I saw her, her condition was as follows: She lay sunk down in bed, her eyes sunken, with dark rims round them. Respiration 50 per minute, pulse 150. The knees were drawn up, the abdomen distended and tympanitic all over, the liver dullness absent; there was tenderness on pressure all over. She was perfectly sensible, and told me the pain began suddenly at a spot to which she pointed, just to the left of the xiphoid cartilage. The abdominal muscles were not at that time rigid; in all probability relaxation had come on as the result of exhaustion.

Operation was at once agreed to. It was now just twenty-four hours since the commencement of symptoms. Ether was given by Mr. Shepherd, and with the assistance of Mr. Hugh Taylor I opened the abdomen above the umbilicus, just to the left of the middle line, the incision being placed in the same position as in the other two cases. When the peritoneum was opened a rush of gas followed, and next a continual welling up of bile-stained fluid mixed with curds of milk. The whole stomach was drawn out of the wound and a perforation found on its anterior surface, close up to the cardiac orifice, so high up that it was difficult to draw the stomach down far enough to make the perforation appear in the wound.

With a curved needle threaded with catgut Lembert's sutures were introduced, first a row close to the perforation, then a second row, so that, when tied, about two inches of the peritoneal surface of the stomach were in apposition, the perforation being at the bottom. Next, the peritoneal cavity was washed out thoroughly in the usual manner, thirty pints of hot water being used, and a glass tube, as in the other cases, was passed in by the side of the irrigator to assist in the return of the water, and only discontinued when clean water returned from every point. The operation lasted an hour, and the patient's condition at the end was one of great exhaustion. Yet she awoke from the anæsthetic apparently quite sensible, and not suffering mentally from shock, though the bodily shock was very severe. The pulse was hardly perceptible, the respiration rapid, and she was very cold. She lived only a few hours after.

The duration of life after perforation of the stomach may be estimated at twenty-four hours; hence the importance of

early and distinct diagnosis cannot be exaggerated. The shock following perforation is so severe and its effects can be observed to increase with such rapidity that it is apparent that the chances of success are diminishing in direct proportion to the length of time that is allowed to elapse between the occurrence of the injury and its repair by surgical means. It has been before observed, though I think not explained, that injuries of the upper part of the abdomen produce greater shock than those of the lower part. Mr. Dunn refers to this. I think it probable that this is owing to their close proximity to the solar plexus and its large semi-lunar ganglia, as I observed that in the second case here related the manipulation of the irrigating tube in this neighbourhood was sufficient to stop respiration on two separate occasions.

One other point I would mention. A frequent cause of death in the cases which survive the first injury is inflammation of the lung or pleura. It appears that septic materials rapidly pass through the diaphragm from below; to prevent this the thorough cleansing of the peritoneum at the time of operation seems the only remedy.

It is difficult to explain why the two cases that recovered have ever since been quite free from all symptoms of gastric ulcer.

A CASE OF ACUTE INTESTINAL OBSTRUCTION FROM IMPACTED GALL STONE: RECOVERY.

By ROBERT WILKINSON, M.D.BRUX., M.R.C.S., L.R.C.P.,
Anerley.

A VERY stout woman, aged 63, was seized (February 7th, 1896) with well-marked biliary colic. She had suffered some months previously from at least two similar seizures, and was a chronic dyspeptic, with great predilection for various patent medicines.

Bilious vomiting was very severe, and the excruciating pain was with difficulty kept in check by hypodermic injections of morphine. On the fourth day of the disease stercoraceous vomiting, general abdominal pain, distension, quick thready pulse, and other signs of acute intestinal obstruction set in.

At a consultation with Dr. Caldwell Stephen, of South Kensington, a diagnosis of impacted gall stone was made and an unfavourable prognosis given.

Treatment consisted chiefly of copious and frequently-repeated enemata of tepid water, alternating with nutrient injections, and hypodermic injections of morphine and atropine (gr. ¼ and gr. ⅙) to allay the excessive pain, a little ice only being allowed by the mouth for thirst. The patient became rapidly worse. The pulse was 120 to 140, wiry and occasionally intermittent; temperature 99° F. The tongue was dry and glazed; the abdomen tympanitic and distended, especially in the cæcal region. Nothing was discoverable on palpation beyond slight fulness over the sigmoid flexure, and nothing on examination *per rectum*.

Four days after the onset of obstructive symptoms (eighth day of disease) there was some amelioration, vomiting diminishing, and the general strength being somewhat better. There was, however, distressing hiccough and continued severe pain, and during the next few days she became progressively weaker, and on the sixteenth day of the illness was apparently dying. The pulse was 135, almost imperceptible; respiration was gasping, the extremities clammy, and mucus rattling in the throat. A hypodermic injection of strychnine sulphate was given (gr. ⅓), and she rallied in a remarkable manner, swallowed a little peptonised milk and retained it.

For the next four days the condition was unchanged, but on the twenty-first day she was again *in extremis*. She, however, rallied again, and, although fearfully emaciated and almost pulseless, her vitality continued to be marvellous. On the twenty-fifth day of the illness the enemata became slightly mixed with fecal matter, and three days later the obstruction finally broke down.

The general condition now improved up to a certain point, but for the next four weeks the weakness was so extreme, owing to obstinate refusal to take nourishment and the in-

tolerance of the rectum to nutrient enemata, that a fatal issue seemed constantly imminent. During this time she existed upon an average of less than 3 ounces of milk a day. Eventually food was taken slightly better, and strength began to return.

Actual size of gall stone.

On the night of April 22nd (eleven weeks after the onset of the first symptoms) I was hastily summoned, and found my patient in great pain, straining, and collapsed; and on examination detected a hard mass blocking the lower fourth of the rectum. By gentle pressure through the posterior vaginal wall the foreign body was extruded, and found to be a gall stone about the size of a pigeon's egg, faceted, and weighing in the fresh condition 3 v gr. xliiss. The patient slowly gained strength, and was ultimately sent to the south coast to convalesce. When I last heard of her she was "perfectly well and active."

REMARKS.

This case supports very well, I think, the contention of my friend and former teacher, Mr. Mayo Robson, that if we can be reasonably sure that obstruction is due to gall stone a palliative line of treatment will probably end in the passage of the foreign body, though many may contend that the risk is greater than that of operative treatment. The stone evidently ulcerated its way into the duodenum and became blocked somewhere in the small intestine.

CHYLOUS CYST OF MESENTERY: OPERATION: RECOVERY.

By J. O'CONOR, M.D. DUBL.,

Senior Medical Officer, British Hospital, Buenos Ayres.

MR. E. M. M., aged 41, manager of a mercantile company, consulted me on September 2nd, 1896, complaining of a tumour in the abdomen. The history was as follows: For the past two years he had an inclination every morning to vomit, with a constant foul mouth and a bad smell from the breath. He frequently had severe lancinating pains in the lower part of the abdomen. In June, after riding ten miles, the pain was so bad that he had to remain in bed for three days. In July he made a sea voyage, and suffered intensely from pain all the time, but he was not quite certain how much sea sickness had to do with it. During August he had much business to transact in Buenos Ayres, which necessitated walking about, and he suffered continually from pain, the morning tendency to vomit and foul breath continuing as before. At the end of August, after jumping from a tram, he experienced the most excruciating agony; on the following morning he was unable to get out of bed, and for the first time noticed a "lump" below and to the right of navel.

A doctor was called in, and later that same day a consultation was held, and he was told he had a tumour, and was placed on low diet, kept in bed, and had free purgation. On the following day his doctor told him he had a "hydatid tumour," which would require operation.

On examination, on September 2nd, a distinct swelling was visible in median line between the umbilicus and pubes. A well-defined, tense, fluctuating tumour was felt, even in contour, movable, and about the size of an ordinary coker nut.

Palpation caused severe pain, so much so that I had to desist from finding the actual range of movement. There was absolute dullness on percussion; no thrill was obtained. The tongue was furred, breath foul, the temperature and urine normal; other organs were healthy. There was nothing to record in his past history excepting habitual constipation and an occasional attack of "asthma." The family history was excellent.

I informed him that he undoubtedly had a tumour, the exact nature of which I could not state, but that I felt pretty certain it contained liquid. I advised him to enter hospital in order that I might make an exploratory incision. This he did on September 7th.

On the following morning, the bladder having been emptied, chloroform was administered, and when the dressings were removed we found that the tumour moved freely in all directions. Assisted by my colleague, Dr. Shadbolt, an incision 3 inches long was made in the median line, directly over the tumour, and the abdominal cavity opened. It was immediately seen that the cyst wall differed from that of a hydatid in that it had a dirty grey appearance, and many large veins ramified over its surface. It looked like a sarcoma. The tumour was lifted out of the peritoneal cavity along with the mesentery in which it grew, and some 4 inches of adherent small intestine. A careful examination was made to see if it was feasible to enucleate it, but as it was so very adherent between the layers of the mesentery, and as so many vessels would require ligation, it was decided to drain it. A medium sized trocar was inserted, and half a pint of milky fluid withdrawn. The opening made by the trocar was enlarged, and the anterior half of the circumference clipped away with scissors, many large veins having been tied, the whole mass was returned into the abdominal cavity, and the cut edges of the cyst united to the parietal wound by a continuous silk suture. The remainder of the superficial wound was closed by two continuous silk sutures, and the cavity of the cyst stuffed with iodoform gauze.

For the following forty-eight hours vomiting was incessant, but ceased on the third day. The highest temperature recorded after the operation was 99.5° F. The bowels were moved on the fifth day, and by the fourteenth day the cavity had contracted flush with the parietal wound. The pain, tendency to vomit, and foul breath completely disappeared, and he was discharged cured two weeks later. He said he "had not felt so well for two or three years."

Dr. Welchli kindly made a microscopic examination of the fluid, and reported that it was ordinary chyle.

On referring to Mr. Treves's treatise in his *System of Surgery*, I find that he states that there have been only 19 cases of mesenteric cysts recorded, 12 of which were cured by operation and 7 died. The situation and mobility of this tumour exactly corresponded with Mr. Treves's teaching, but he says they are usually painless. In this case pain was one of the earliest and the most distressing symptoms.

ARTIFICIAL FEEDING OF THE INSANE.

By L. HARRIS-LISTON, M.R.C.S.,

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THE persistent refusal of food amongst the insane is a symptom of frequent occurrence, which, when moral suasion has failed, has to be treated by forcible feeding.

Of the last 200 patients admitted to a lunatic hospital for private patients, among whom refusal of food is said to be more common than among paupers, 27 required forcible feeding, which I performed on them nearly 3,000 times. Complete refusal of food for twenty-four hours in a strong well-nourished patient, or the missing of two meals by a feeble one, may be taken, as a general rule, to indicate the operation; freshly admitted cases with a history of starvation, who are feeble, with weak pulse, and who resist taking food, should be fed at once. Of these 200 patients 85 were males, 115 females, and of the 27 fed, 12 were males and 15 females; this 27 does not include many patients whom the attendants were able to feed with a spoon, but only those who successfully resisted this method. Of these 27, there were 4 in a state of acute mania, 4 in a stuporose condition, 13 were melancholiacs, 4 were