A CASE OF HOUR-GLASS STOMACH: NON-MALIGNANT: GASTRO-ENTEROSTOMY.

By CHARLES P. CHILDE, B.A., F.R.C.S.ENG.,
M.R.C.P.EDIN.

Assistant Surgeon, Royal Portsmouth Hospital; Surgeon, Medical and Surgical Home for Women, Southsea.

THE following case, very similar to that published in the BRITISH MEDICAL JOURNAL of December 8th, 1900, by Dr. Sidney Martin and Mr. Bilton Pollard, is worthy of record as drawing attention to an exactly analogous condition, which, as in their case, was unfortunately not recognised at the time of the operation, and which, unless borne in mind and very carefully looked for, is liable to lead to very serious error in performing the operation for the relief of the obstruction.

E. C., aged 51, was admitted under my care into the Medical and Surgical Home for Women, Southsea, on December 13th, 1900.

History.—Her father died of bronchitis; her mother, she stated, died of rheumatism, and one sister died of phthisis. There was no history of cancer or tumour in the family. Her occupation was that of a children's nurse. She had always had pretty good health until the June of 1899, when she said she suffered for five or six weeks with pain after food, followed by sickness, from which she got quite well. She did not as far as she knew then bring up any blood. Her present illness began about the beginning of October, 1900, with lancinating pains in the chest, extending through to the shoulders, and all round the lower thoracic region. It was generally made worse by taking food, but sometimes came on independently of it. Six weeks after this she began to vomit, and suffered great pain on taking food. This lasted a week and then passed off, but returned again in a fortnight, and persisted until her admission on December 13th. The vomited matter she described as clear and slimy, and contained nothing black or like blood. On December 13th, the night of her admission, she had coffee-ground vomiting.

Anamnesis.—She was slightly jaundiced on admission, but not very anæmic. Her tongue was coated with a white fur except at the edges and tip. She had anorexia, and said she was afraid to eat. She had lost very much in strength and about a stone in weight. She was not, however, greatly emaciated. Physical examination showed a remarkably long thorax—the lower border of the ribs being almost down to the iliac crest—with a very narrow space between the divergence of the ribs in front. There was a distinct swelling, with very marked communicated pulsation from the aorta slightly above and to the right of the umbilicus. The liver dulness was normal, and percussion did not show the stomach below the umbilicus. I regret I did not try the method of inflating the stomach recommended recently by Professor Mayo Robson. The pulsating swelling afterwards apparently diminished considerably. It was slightly tender on pressure. Urine was normal.

She remained under observation from December 13th, 1900, to February 3rd, 1901, the date of the operation. She was fed on peptonised milk and beef tea, and kept at rest in bed. During this time she constantly suffered from pain in the stomach and lower parts of the chest. She would keep her food down for a week or ten days, and then the pain would increase and be followed by a severe bout of vomiting. On three occasions she vomited coffee grounds and had mælena, and the vomit at other times as tested chemically contained blood. It also contained free HCl in abundance. The pulsating swelling noticed on admission considerably diminished, as stated above. She developed after coming into the home a very troublesome cough, always coming on worse at the time of her bouts of vomiting. There were no signs of any disease in the chest. The cough was at once checked by a subcutaneous injection of morphine gr. ½. She steadily went down hill while under observation in the home, losing weight and strength. The diagnosis made was malignant disease, against which was the presence of free HCl in the vomit or simple ulceration with cicatricial contraction. I decided on performing laparotomy, with a view to a further gastro-enterostomy should the condition found seem to warrant it, and I should have operated a fortnight earlier but for the troublesome cough. This however subsequently almost disappeared, which disappearance, I think, was attributable to daily lavage of the stomach, and after washing out the stomach daily with weak Condy's fluid for a week, and emptying the bowels well with calomel, I operated on February 3rd.

Operation.—I opened the abdomen by an incision from the ensiform cartilage to the umbilicus. The stomach at once presented, not abnormally large, and on passing my hand up to the pylorus a hard swelling was found posteriorly, and the pylorus was very fixed, and could not be drawn down. The swelling, which had received pulsation from the aorta, and was noticed on admission, was felt, and thought—as turned out afterwards to be the case—to be the pancreas, thickened and puckered up by cicatricial contraction. I performed Von Hacker's posterior gastro-enterostomy, and owing to the peculiar conformation of the thorax was obliged to extend my abdominal incision an inch below the umbilicus. I noticed at the time considerable difficulty in drawing the stomach down, and thought it due to the fixing of the pylorus. I was very ably assisted by Dr. Forde, who administered the anæsthetic (chloroform), and by Dr. Essey, who helped me with the operation. The most troublesome part of the operation was the oozing from the cut stomach and bowel. The patient bore the operation well.

Progress.—The temperature on the night of the operation was 100.8°; next morning it was normal. She went on well till the fourth day, though with a weak pulse. Her temperature was normal. She was fed by the mouth with egg albumen and brandy twenty-four hours after the operation, and she felt very well; as she expressed it, much better than before the operation. On the fourth day her cough returned with great intensity, and was not relieved by morphine. She said she felt it was killing her, and she gradually sank twenty-four hours later. Her tem-

perature rose to 102° on the day of death. She had no sickness from the time of the operation, and no abdominal tenderness or swelling.

Post-mortem Examination.—This was performed the next morning. The abdominal wound was healed throughout by first intention. There was no peritonitis and no fluid in the peritoneal cavity. The anastomotic opening was absolutely secure everywhere. The operation itself was, in fact, quite successful. On dissecting out the stomach it was found divided into two portions by a cicatricial contraction, the opening between the two admitting my little finger. The ulcer causing the contraction was situated on its posterior surface, and near the middle of the lesser curvature. It had puckered up the stomach, binding it to the under surface of the liver, from which extended thickened adhesions up to the pylorus, producing the thickening felt at the time of the operation fixing the pylorus, and thought to be the source of the obstruction. The first compartment of the stomach was found under the thorax and diaphragm, and the two compartments formed a large dilated stomach. The anastomotic opening was made in the lower compartment, and so would have been useless in relieving her condition. The first compartment was found distended with nourishment given after the operation, a lesser quantity having escaped into the second compartment, and this gradual distension probably produced a return of her cough.

This case, read by the side of that so recently published by Dr. Sidney Martin and Mr. Bilton Pollard, in which a similar condition existed and a similar mistake was made at the operation, is an instructive one, and I publish it with the view of emphasising the need for very careful examination of the stomach before performing the anastomosis. The diagram (Fig. 1) roughly indicates the position, and

Fig. 1.—A, first compartment of stomach not discovered at time of operation; B, second compartment to the posterior surface of which the jejunum was stitched; C, position of ulcer and adhesions to under-surface of liver; D, abnormal length of thorax and narrow space between the diverging ribs in front.

shows how easily the mistake may be made. The condition was not suspected at the time of operation—and, moreover, would have been difficult to discover, as owing to the peculiar formation of the chest wall, the first compartment was concealed under the ribs and diaphragm, and it was only on the removal of the former that the condition was discovered. In fact, when coming to the stricture at the necropsy I thought I was arriving at the oesophageal opening into the stomach. I doubt, too, very much whether the first compartment in this case could have been brought down sufficiently low to perform the anastomosis.

THE eighth Dutch Congress of the Medical and Natural Sciences will be held this year at Rotterdam on April 11th, 12th, and 13th.