the pylorus, with a few flakes of yellow lymph around the aperture. The wall of the stomach in the immediate vicinity of the ulcer was greatly thickened. No escape of any liquid or solid contents was observed, but a considerable quantity of gas escaped through the hole from time to time. Owing to the thickening of the stomach wall it was difficult to close the opening by the ordinary Lambert suture. In order to seal the hole effectively a tuck of the stomach was made. The abdominal cavity was then thoroughly doused with hot water and carefully sponged. The parietal wound was sutured with silkworm gut. The condition of the patient on removal from the operating theatre was most satisfactory, and there was very little collapse and a very fair pulse.

On June 27th it was noted that the patient had done very well since the operation. Nutrient enemata had been administered, and by mouth only water and lemon water. He had had sundry injections of morphine for the pain which he referred chiefly to the upper part of the abdomen. He had a fair pulse and fair colour, although looking very thin.

On July 5th the wound was dressed for the first time since operation. The cutaneous wound was for the most part healed. Some stitch abscesses had formed, giving rise to a considerable amount of offensive discharge. The stitches were all removed and the area cleared up. The patient had complained of no local pain.

The temperature on the evening of July 26th went up to 99.8°, on the 27th to 101°, becoming normal again on the 28th, and remaining so.

On July 5th extras such as chicken and broth were added to his diet. He had not vomited since the operation, he had a keen desire for food, was stouter, and looked much better.

On July 10th he was able to sit up.

On July 17th he left the hospital, after having been up for a few days, cured.

GASTRO-JEJUNOSTOMY FOR GASTRIC ULCER.*

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A LADY, aged 28, had suffered for nearly ten years from the symptoms of gastric ulcer. Nausea was almost constant; vomiting was frequent; pain, more or less severe, was of daily occurrence, irrespective of the presence or absence of food in the stomach. Occasional profuse hæmatemesis had, as the patient herself expressed it, more than once called on her to contemplate the crossing of the "melancholy flood." Her weight, which had been 126 lbs., had diminished to 84 lbs., and her appearance, when I saw her first about the middle of September, 1899, was that of a profoundly anæmic, ill-nourished chronic invalid. That she had received the very best advice was shown by her bundle of prescriptions and diet charts. It would be very unfair to suggest that the remedies prescribed were of no avail; many of them gave prompt relief for a time; but, unfortunately the good effect soon became exhausted; the mixture which gave her most relief, and which, though not entirely annulling the pain, brought it within the margin of endurance, was one of sodium bicarbonate, bismuth carbonate, and morphine. The invaluable aid of scientific dietetics was invoked with considerable temporary success in the private wards of two well-known hospitals, where, also, rectal feeding was given a sustained trial; this careful treatment, though signally beneficial at the time, failed to effect more than a transient amelioration of the symptoms. Not that she was careless or indiscreet in her dietary, her experience undoubtedly controlled that; whilst at the same time she was nearly always under observation by some medical man.

A careful examination revealed nothing more than considerable tenderness over the epigastrium and probably a somewhat dilated stomach. An attack of acute rheumatism some five years earlier had left at the apex a soft murmur, which was conducted towards the angle of the scapula.

A consideration of this history led me to think that I was not likely to attain much success with drug or dietetic treatment. I expressed this opinion, and also suggested that possibly an operation might be of some benefit. The patient eagerly accepted the suggestion, and I fully explained the gravity of the proposal, pointing out the more than ordinary risks which her wretched physical condition would demand her to take. She replied to this by saying that, if I had the courage to operate on her, she would gladly take the risk, however great, as she could not long exist in such misery, a burden to herself and her friends. Operation was accordingly decided on.

I thought it well first to make an effort to improve the general health, and I sent her to Weston for a fortnight; but unfortunately during this time she had another severe attack

of vomiting and hæmatemesis, and she returned home as bad as, if not worse than, when she left. This was not encouraging, and my first impulse was to decline to operate; but, on reflection, I came to the conclusion that if she was to be operated on at all it ought to be done without delay, as, in her rapidly degenerating state of health, what was boldness now, in a month's time would be rashness, and that if the proceeding could be conducted with rapidity the case might be guided to a successful issue. Doyen's classical indications for gastro-jejunosomy in non-cancerous affections were surely fulfilled in this case—"la gravité du cas" was obvious and "l'inefficacité de tout moyen médical" was proved.

Operation.

This was performed in the patient's home on October 10th, 1899. She was prepared in the usual way; the field of operation was treated, in addition to ordinary cleanliness, by scrubbing with germicidal soap and brushing with biniodide of mercury in methylated spirit, 1 in 500. This was done the day previous to, the morning of, and just before, the operation; after each dressing a sterile compress moistened with chinolol, 1 in 1,000, was applied. Dr. S. Hamilton administered chloroform with Krohne's apparatus, and I had also the advantage of the expert assistance of Mr. W. J. Corrigan. The instruments, dressings, etc., were sterilised by steam, and our hands were carefully cleansed and treated by the permanganate, oxalic, and lime-water process. An incision in the median line about 4 inches in length, reaching to within almost an inch of the umbilicus, was made, and the stomach brought out; it was found to be greatly dilated, and the pylorus thickened for 3 or 4 inches in the direction of the stomach. This thickening was irregular, and confined mostly to the anterior surface, probably a large ulcer; there were no adhesions, but several darkened spots were seen on the anterior surface, possibly more ulcers; at this stage the patient, who had taken the chloroform rather badly, exhibited alarming symptoms of cardiac failure, but restorative measures rallied her a little. I had intended to make the junction of small intestine and stomach with Laplace's forceps, tearing the compression action of Murphy's button in so anæmic a patient, but the desperate condition demanded a hasty termination of the operation, so a medium-sized Murphy's button, $\frac{1}{2}$ inch, was used; the stomach and colon with omentum being turned up, an incision was made through the posterior layer of transverse mesocolon; the posterior wall of the stomach, practically the antrum of the pylorus, was pulled through, an opening made, the female end of the button inserted, and the purse-string suture, which did not pass through all the coats, tightened. This opening was somewhat nearer to the great curvature than to the axis of the stomach. A portion of the jejunum, about 8 inches from the ligament of Treitz, was sought, opened, and the male end of the button fixed; the two halves of the button were then brought together, care being taken not to press them home too tightly. The abdominal wound was united with silkworm gut, and a sterile dressing applied. The whole proceeding occupied just under twenty five minutes, and at least five minutes were taken up in efforts to rally the patient.

After-Course.

The highest temperature during the first thirteen days was under 100° F. The bowels acted on the seventh day in response to mercury subchloride $\frac{1}{2}$ gr. Within the first twenty-four hours the patient vomited in all about a pint of green fluid. This ceased until the twenty-fourth day, when she again vomited some green fluid; since then it has not recurred. The stitches were removed on the thirteenth day, when the wound was found to be soundly healed.

On the evening of the fourteenth day the temperature was 101.2°, owing to femoral thrombosis, which followed the normal and painful course. Possibly nothing I have said with regard to the anæmic condition of the patient will as clearly demonstrate the gravity of the cachexia as this single sign, phlegmasia dolens. The button passed on the seventeenth day.

The patient was fed during the first eight days by meat suppositories and enemata, consisting of brandy, peptonised milk, and bovine. Soon after the operation teaspoonfuls of hot water were permitted by the mouth to allay the thirst, but this was chiefly combated by the administration by the rectum of about a pint of warm water once or twice in the twenty-four hours. On the third day peptonised milk and bovine in small quantities were allowed by the mouth; in about ten days she was taking beef-tea, milk puddings, and eggs, stewed apples; and on the twentieth day she took some minced chicken and breadcrumb. On the twenty-seventh day she left her bed room, and on this day she had a dinner consisting of chicken and bread, with stewed apples and a little cream, a combination which she had been unable to touch for more than four years. All the pain, sickness, and discomfort have gone, she is gaining flesh rapidly, and altogether has the appearance of returning to robust health.

It will be noticed that in the earlier history of the case there is no mention of the use of the stomach tube. I ought to have said that that some years ago the tube was used once, but it made the patient so ill that she declined to have it passed again.

In recommending a severe surgical procedure for chronic gastric ulcer, one has to consider that the large majority, 85 per cent., heal under ordinary treatment, so that the indications for operation must be clear and imperative—I had almost said "as they were in this case," but, if I had a choice, I should much prefer to operate earlier, when the chances of success were more favourable. Without doubt, too prolonged medical treatment is not advisable, as it is well not to overlook that "Brinton, Dittrich," and others, to quote Doyen,

* Read before the South Wales and Monmouthshire Branch of the British Medical Association at Swansea.

have demonstrated the frequency of the cancerous transformation of a simple ulcer." Again, quoting Debove, he gives the mortality of ulcer of the stomach treated medically as 50 per cent., and thinks this is actually below the mark in view of this subsequent malignant degeneration. It may be asked, How can an operation of this character, which does not actually attack the disease itself, cure, or much less, prevent serious sequelæ? The contention is that after gastrojejunostomy the stomach rapidly empties itself, and food is not retained to irritate the ulcer—that is, rest is permitted. If there is also dilatation, due to spasm, or the presence of an ulcer near the pylorus, then the unobstructed escape of the gastric contents favours a return of the stomach to its normal state.

The general mortality of this procedure is given by Greig Smith³ and others as about 30 per cent., but this includes operations for malignant disease; for non-cancerous affections the outlook is much more pleasing, Doyen's brilliant record and the 10 cases from the Breslau clinic⁴ without a death, the 28 cases from the Heidelberg clinic⁵ with 4 deaths, as well as the later statistics of Carle,⁶ giving 23 consecutive cases without a death—all present this grave operation in a favourable light.

As to which position is best—the Wölfler as against the Courvoisier or von Hacker—my experience is altogether too limited to express an opinion, save this: that I am so satisfied with the von Hacker position in this case that I should adopt it again if local circumstances would permit.

It is a very great satisfaction to me to be able to state that in the four months since the operation the patient has gained 27 lbs. in weight.

REFERENCES.

¹ *Traitement Chirurgical des Affections de l'Estomac.* ² BRITISH MEDICAL JOURNAL, 1894, and *Medical Annual*, 1896. ³ *Abdominal Surgery.* ⁴ Editorial, *Annals of Surgery*, August, 1898, and *Beiträge zur klinischen Chirurgie*, Band xx, Hefte 1 und 2. ⁵ *Annals of Surgery*, June, 1899, and *Beiträge zur klinischen Chirurgie.* ⁶ *Medical Annual*, 1899.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

DIPHTHERIA: PARTURITION: RETAINED MEMBRANES: INFLUENZA: DIPHTHERIA IN THE INFANT: RECOVERY.

M. G., wife of an employee, aged 33, and advanced in pregnancy, was found to be suffering on December 18th from a sore throat of a suspicious nature with nasal discharge. She was isolated, and her condition closely watched. On December 19th the patient was no better, and a slight membrane had appeared on the right tonsil. There was no pyrexia and no enlargement of the glands of the neck. The pulse-rate was slightly accelerated. A bacteriological examination showed the presence of the Klebs-Loeffler bacillus, and accordingly a dose of 1,500 units of diphtheria antitoxic serum was administered on December 22nd.

On December 21st a full-term infant was born. Parturition was complicated by adherent chorion, which required digital removal from the uterus. The throat condition improved greatly after the antitoxin, which evidently loosened some membranous matter present in the trachea and hitherto unsuspected, as after this a considerable quantity was coughed up. The patient progressed favourably with the exception of a slight rise of temperature to 100.4° F. on December 23rd, and a rise of 101.4° on December 29th, the latter being due to constipation.

Epidemic influenza was prevalent at this time, and on January 3rd she developed a severe attack of the myalgic type with an alarming rise of temperature to 105° F. On January 4th the temperature was 104°, and on the 5th returned to normal. There was an entire absence of symptoms pointing to pelvic trouble at this time. The patient has now quite recovered, and with the exception of slight nasal regurgitation no paralytic symptoms manifested themselves. The case is of interest owing to the association of confinement with diphtheria and influenza.

Every precaution was adopted with regard to the child, but when 4 days old it was noticed to have slight difficulty in nasal breathing. When 5 days old a distinct patch of membrane was seen on the right tonsil, and a dose of 350 units of antitoxin was injected subcutaneously. The following day there was little improvement, and a dose of 1,000 units was given. The child made an uninterrupted recovery, and was in no way harmed by the large dose of serum.

The writer has not seen a case recorded in which so large a dose has been given at so early an age.

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RETENTION OF THE PLACENTA FOR NINE DAYS: RECOVERY.

DURING one of my missionary tours this winter I came across the following remarkable case: When I reached the village of Lyngkyrdem (Khasi Hills, Assam) on November 15th, 1899, a message was brought to me from another village called Nongshken (distant about eighteen miles), asking me to go there to assist a woman who had been delivered of a child some days before, but the placenta was still retained. It was impossible to proceed further that night, the mountain path being so difficult to travel in the dark that none of the natives would accompany me. Starting early in the morning I reached the place after midday, and found a woman about 20 years of age in a most deplorable condition. This was her second child, and it had been born nine days before my arrival, or, as her friends put it, nine nights had intervened between the birth of the child and my arrival. The child was alive and strong, having been fed chiefly upon plantain, but had also occasionally been put to the breast. There was no bed in the house, and the patient was lying upon a small mat on the floor, which latter was composed of split bamboos elevated 3 or 4 feet above the ground, and her surroundings were more insanitary than anyone not knowing the Khasi hills can imagine. The perineum had been torn to within half an inch of the margin of the anus; the cord had been torn from the placenta by their rude efforts at extraction. Her temperature was 102° F. The smell from the patient and her surroundings was almost unbearable. My compounder administering chloroform, I introduced the whole hand into the uterus and extracted a placenta in an advanced state of decomposition. Then I gave her a douche of sol. hydrarg. perchlor., 1 in 1,000, and administered ergot and quinine. I remained in the village about four days, continuing the douches twice a day, and also the quinine and ergot. The village is very malarious, and the patient, like more than half the inhabitants, had a spleen reaching nearly to the middle line; that was the reason for giving her quinine. The only way I could give her the douche was by bringing the body to the edge of the small mat and allowing the discharge, etc., to run to the ground through the split bamboo flooring. Afterwards the temperature reached 103°, and then subsided gradually, and she made a good recovery. When leaving I instructed the teacher of the village how to continue the injections for a few days longer. Three weeks after I saw her again, and found her out of danger, her temperature normal, her appetite returned; she was also able to sit up and walk about the house and to nurse the child.

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A CASE OF COMPLETE INERTIA AND PROLAPSUS UTERI.

IN the evening of December 27th I was called to a primipara, aged 20. The midwife who sent for me stated that one child was born, but there was another child, dead, which she was unable to deliver.

On examining the patient I found a firm fleshy pyriform mass of a dark claret colour, and about the size of a fetal head, projecting from the vulva. To the exact apex of this mass about one-fifth of the maternal surface of the placenta was still adherent. On digital examination the finger passed at once into a *cul-de-sac* formed by the stretched and inverted vaginal walls. No uterus could be felt through the abdominal wall. The tumour did not harden on taxis. Despite the fact