for. From the outset, shock is very severe, and when we add to this the effect of a difficult and dangerous operation, it is obvious we are taxing our patient's resistance to the utmost. It is therefore of supreme importance that every effort should be made to complete the operation as rapidly as possible. In our modern zeal for thorough asepsis, I am afraid we are rather inclined to under-estimate the value of rapid surgical work. Here, however, the question of time has an intimate bearing on the prospect of success, and we cannot afford to neglect it.

Peritonitis.—Our next complication is peritonitis. It is always present to some extent. Its severity will depend on the nature of the extravasated material and the thoroughness with which cleansing has been carried out.

Tympanites is another very troublesome complication. It occurred in two of my cases and in one of Dr. John Campbell's. It must be promptly dealt with, and here we are face to face with a serious difficulty. A purge unfortunately is precluded by the state of the stomach. It must, therefore, be combated by turpentine enemata, use of the rectal tube, and gentle movement of the patient from one side to the other. Should these measures fail, a purge must be risked, and I gave my last case 5 grains of calomel on the third day, and in this way obtained the necessary relief.

Abscess.—Subphrenic abscess is another very fatal complication, and is commoner on the left side, extending to the splenic area. Deaths from this cause are reported by Whipple, Jones, Barker, Roughton, and others.

Empyema.—Mr. Morse records a case in which a left pleural abscess developed. This was opened and drained, and the patient recovered.

Hæmorrhage.—Mr. Barker mentions one of his cases, which made an apparently good recovery from the operation, but was suddenly seized on the tenth day with a violent attack of hæmatemesis, from which he never rallied.

Other Causes of Death.—Among the causes of death which have been recorded may be mentioned pneumonia, hepatic abscess, and rupture of a second ulcer. Intestinal obstruction was the cause of death in the case operated on by my colleague, Dr. Wheeler. The patient died on the tenth day, and the *post-mortem* notes made by Dr. Lorrain Smith are as follows:

Marked abdominal distension, the abdominal wound being torn open by the distended small intestine. Stomach was firmly adherent to the diaphragm, liver, spleen, and some loops of small intestine. On tracing the small intestine downwards, congestion and distension were well marked till a point was reached 2 ft. above the ileo-cæcal valve. Here the bowel was bent sharply back on itself, forming a V-shaped bend, with the limbs of the V firmly bound together, and the apex adherent to the anterior abdominal wall, causing a complete obstruction of the gut at this point. The 2 ft. of small intestine below this, and all the large intestine was collapsed and empty. When the stomach was removed the opening was found firmly closed; the sutures were in position, and on distending the viscus with water there was no leakage whatever. On opening the stomach and examining the inner surface no trace of the ulcer could be found. The mucous membrane was perfectly healed, leaving no sign whatever of scar, ridge, or anything else to show where the ulcer had been.

This an exceedingly interesting record, demonstrating very clearly two important points:

1. How rapid and thorough is the effort at repair.
2. The great extent of the adhesions which we may expect to follow this operation.

The first point is of importance as forming a guide to the time after operation at which we may allow food freely by the mouth. In my last case the patient had sips of water after forty-eight hours, peptonised milk on the third day, tea on the fifth, and fish on the seventh day, and chop at the end of a fortnight.

The second point bears very directly on the question of the influence of adhesions on the functions of the stomach.

Adhesions.—It has been recently pointed out that adhesions are one of the causes of gastric pain. It is, however, a curious fact that patients who have been successfully operated upon are, in the majority of instances, practically free from pain and gastric trouble. This is probably explained by the fact that while slight adhesions are liable to stretch, those following operation are so extensive and firm that stretching is almost impossible.

Since the above paper was written the following case has come under my care:

Miss L. D., aged 20, had suffered for about four years from gastric disorder, her prominent symptoms being (1) Severe pains in the epigastrium,

coming on about half an hour after food, relieved by lying on the left side and on the back; (2) nausea; (3) vomiting only about once a week, and this always gave relief to the pain; she never vomited any blood; (4) anæmia and constipation; her diet for more than three years was limited to milk foods, and even these caused pain.

Perforation.—On January 23rd, 1900, during a visit to a friend's house, two hours after a meal consisting of two slices of brown bread and butter and a cup of tea, while sitting in a chair, she was suddenly seized with a violent pain in the epigastrium, and felt very sick and faint, but did not vomit. She was helped home—a distance of about 200 yards—"half walking, half carried." Dr. Ledlie, who saw her almost immediately, found her in a very collapsed condition, with a rapid thready pulse. He suspected perforation, and Professor Whitla, who saw her in consultation, confirmed his opinion, and she was promptly sent to hospital, her home surroundings being unsuitable for operation.

Condition on Admission.—About 11.45 P.M. her condition was as follows: Colour fair; initial shock had passed off, and she said she felt much better; pulse 118, but small; pain over the abdomen was very slight, though there was distinct tenderness in the epigastrium just below the xiphoid; abdomen was slightly distended. Liver dulness was normal, but percussion revealed a uniform tympanitic note all over the abdomen, it being impossible to differentiate stomach or colic resonance. Respiration was shallow and thoracic.

Operation.—This was undertaken five hours after perforation. An incision was made from the xiphoid to the umbilicus. On opening the peritoneum there was an immediate escape of stomach contents with evidence of localised peritonitis. The stomach was adherent to the under-surface of the left lobe of the liver. On gently separating the adhesions, a perforation the size of a threepenny-piece was found, surrounded by a zone of induration larger than a crown-piece: this area was pale and friable, and the tissue of which it was formed failed to hold a suture. The ulcer was situated on the middle of the anterior surface of the stomach nearer the pyloric than the cardiac end. The perforation was closed by a single row of Lembert's sutures, 15 in number, and about 4½ inches long, the entire indurated area being enfolded. There was no general soiling of the peritoneum, and the stomach area having been thoroughly sponged with gauze pads, three gauze drains were inserted, one into each subphrenic space and a third leading down to the line of suture, and the wound closed with silkworm gut. The operation lasted an hour and a-half.

After-history.—The patient suffered from troublesome vomiting for two days, which yielded to a hypodermic injection of morphine bimeconate gr. ½. She passed urine the day following operation (this I always regard as a very favourable sign), and her recovery was uneventful. The gauze drains were removed on the sixth day. She was fed every four hours by peptonised nutrient enemata, consisting of bovril 3iv, whisky 3ss, alternating with peptonised milk 3iv, egg, whisky 3ss. Nutrient suppositories were also employed, and water was given by the mouth on the second day, peptonised milk in small quantities on the fourth day; on the fifth day some Brand's essence and some cocoa; on the sixth day Benzer's food. After ten days rectal feeding was discontinued, and she was then able to take tea, fish, and thin bread and butter.

Three weeks after the operation she was able to be up, and could eat chicken, fish, and chop without the least discomfort for the first time for almost four years.

In this case the ulcer was on the anterior surface, and the pain was relieved by lying on the back. In my third patient the pain was greatly aggravated by lying on the back, and I rather expected to find a posterior ulcer, but the lesion was on the anterior surface. The relief of pain by any special position can therefore not be relied on to give trustworthy information as to the seat of the ulcer.

This brings the total number of cases operated on in Ulster up to 14, with 7 recoveries. My own operations amounted to 6, with 3 recoveries.

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PERFORATING GASTRIC ULCER, WITH NOTES OF TWO SUCCESSFUL CASES AFTER OPERATION.

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THERE is no department in which surgery has made such remarkable advances within recent years as in the treatment of abdominal disease, and it may safely be predicted that with increasing accuracy in diagnosis the brilliant results which have hitherto been achieved will be wholly eclipsed. Fifteen years ago a case of perforating ulcer of the stomach was regarded as almost of necessity fatal, and the physician was powerless to check the course of the disease, and only

hoped, with morphine and opium, to relieve the suffering and pain.

We may safely state that the death-rate for acute cases after operation is as nearly as possible 70 per cent., for chronic cases 55 per cent. If we bear in mind that the mortality of cases left to Nature is 95 per cent., it will be evident that a gratifying advance has been made.

Perforation takes place in about 12 per cent. of all cases of gastric ulcer. The ulcer perforates on the anterior surface in about 85 per cent. of cases, in the pylorus 10 per cent., in the posterior surface only in 2 per cent., for reasons which are perfectly obvious and well-known to you all. Perforation is more common in females than in males, in the proportion of 70 to 30, but the actual proportion of perforation cases is greater in males.

There are no special signs whereby we may arrive at the diagnosis of perforation. The symptoms are simply those of a "sudden peritoneal injury with rapidly appearing peritonitis." Very often, indeed, the condition has only been ascertained after opening the abdomen. The past history of the patient may help us. Where the classical symptoms of ulcer—pain after food, vomiting, hæmatemesis—have been in evidence, followed by sudden acute pain in the abdomen the diagnosis may be easy, but in the cases which have come under my observation these have been conspicuous by their absence. In one case we had the history of dyspepsia, in the other merely a sense of discomfort after food. Yet, notwithstanding this, we had unmistakable evidence at the operation that a grave lesion of the stomach had been in existence for some time. The ulcers were not of the acute type, simply punched-out holes with extravasation in the immediate vicinity. The first thing to note is that a grave lesion of the stomach may exist, without definite symptoms pointing to it.

The situation of the pain deserves careful notice. The position of greatest intensity does not help us—on the contrary, it may and often does lead us astray. In the first case the point of greatest intensity was over the iliac region, in the neighbourhood of McBurney's spot, suggesting at once the possibility of perforating appendicitis. This delusive symptom has been noted in many cases, and the explanation suggested has been this, that in perforations near the pylorus escaped fluids from the stomach fall naturally by gravitation into the iliac region, and there set up irritation. This may be so in some cases, but I well remember the case of a barmaid under my care suffering from peritonitis, secondary to an ulcer on the posterior wall of the stomach, without extravasation of the stomach contents, in which the predominant symptom was pain in the right iliac region. So marked was this that after consultation it was decided to explore this region, and the appendix being much swollen and inflamed it was deemed advisable to remove it, but the true lesion was not discovered, as the patient became so collapsed that she died on the operating table before complete exploration of the abdomen could be performed.

With regard to the operation for perforating ulcer I will simply state that it may be easy or may be very difficult, requiring great care and patience to render the holes water-tight. The openings in the anterior wall are generally fairly easy to close with a little ingenuity, but the openings in the posterior wall, which fortunately so rarely occur, often present very serious difficulties, as is readily appreciated when one considers the anatomy of the parts concerned. Absolute cleanliness is the keynote of success. One of my cases got well without interruption; the other developed a subphrenic abscess.

We may have three kinds of abscesses in connection with an ulcer of the stomach, two within the peritoneal cavity and one outside it: (1) in front and (2) behind the gastro-hepatic omentum, and (3) retroperitoneal.

In Case 1 we had to deal with the second variety. Cases have been recorded of retrogastric and perisplenic abscess in connection with perforations on the anterior surface. This condition may be explained in two ways—septic material may have been absorbed and transferred by the lymphatics, or some of the contents of the stomach may have found their way through the foramen of Winslow into the lesser peritoneal cavity, travelling over the lower border of the lesser omentum. The practical question is how to prevent this most serious complication. Clearly it seems to be by cleaning out the lesser bag in all cases of perforation.

CASE I.—E. C., aged 19, a shop assistant, was admitted into the Cardiff Infirmary on December 16th, 1898. He stated that he had been suddenly seized with pain in the right side of the abdomen at 9 P.M. on December 15th. The pain was paroxysmal in character. He vomited soon after the pain came on and several times during the night. In his past history there was no special feature to note. For nine months he had experienced an uncomfortable feeling in his stomach one or two hours after food. He had never had any pain after food, and there had been no vomiting of food or blood. He had been feeling ill and very irritable for some time before his attack.

On admission the abdomen was found to be very tense and resistant to pressure. Pain was complained of in the epigastric and right and left hypochondriac regions. On pressure there seemed to be greater tenderness in the right lumbar and iliac regions than elsewhere. The pulse was good, its rate was 112; the tongue was slightly furred and dry.

I had seen the case in consultation with Dr. Fiddian, and our diagnosis was probably a perforating ulcer of stomach. As the result of consultation in hospital, it was decided to explore the iliac region first, in order to ascertain the condition of the appendix. The usual operation for appendicectomy was performed, and the appendix found normal. An incision was then made between the sternum and the umbilicus, the stomach exposed, and a small perforation found in the anterior wall, close to the pylorus. The perforation was closed without much difficulty with silk sutures. The abdomen was then thoroughly flushed with hot water, the opening in the iliac region facilitating this very greatly, and then sponged. The wounds in the abdominal wall were sutured with silkworm gut.

In the after-history of the case there was no special feature to note except the temperature. There was no pain of any kind or vomiting. The temperature did not become perfectly normal during the whole of his stay in hospital, the evening temperature being generally a little above 99° F. for a fortnight. On January 1st, 1899, it went up to 100.4°, and the patient was put back on to milk diet; on January 7th and 8th it was up to 101°, and remained at this level till the 13th.

From January 15th to the 22nd the temperature was normal, and after this there was a very slight evening rise to 99° till he left the hospital on February 1st. He was discharged because of an outbreak of erysipelas, which rendered it necessary to clear out the ward.

He was readmitted into the hospital under the care of Dr. Fred. Evans on March 31st, 1899, at the request of Dr. Fiddian some two months after his discharge. He stated that in the interval he had continued in much the same condition as when he was first discharged, although well looked after at home he did not get stronger, but there were no special symptoms. His doctor called to see him occasionally. About March 10th a temperature chart was started, and then it was found that his evening temperature was generally over 100° F. Towards the close of March he had pains in various parts of his body and in the right shoulder, and he used to feel cold and shivery at times. On the day of his readmission into hospital, March 31st, his temperature mounted to 103° F., and he began to feel sick and inclined to vomit, and his doctor therefore ordered him into the hospital.

On admission he had a temperature of 104° F., pulse-rate 132, and a respiration rate of 32. He felt very ill. There was definite pain and tenderness in the epigastric and right hypochondriac regions, but no visible swelling or redness. At 7 P.M. the same day he started vomiting a large quantity of foul-smelling purulent material, and then coughed up a considerable quantity of the same. His temperature went down to 102°, and at 8.30 P.M. he said he felt much better.

On April 1st he was much better, and his temperature was normal. On examination of his chest it was found that expansion was not so good at the right base as at the left; the vocal fremitus was diminished on the right back from about the fourth to the sixth ribs, and below this it was absent. On percussion there was considerable dullness from the fifth rib to the base; the breath sounds were very feeble from the fourth to the sixth ribs, and below this absent. No dullness was to be seen or felt in the abdomen, at the seat of pain in the right hypochondriac region, and the pain and tenderness disappeared after he started coughing on April 31st. Dr. Evans explored the right base with a needle, and drew off some blood-stained fluid which contained pus cells.

The patient continued to cough up some purulent material, the quantity per diem gradually diminishing, and the chest condition improved so that on April 15th there was no dullness on right side, the breathing was vesicular, the vocal fremitus and resonance equal on the two sides, the expansion equal on the two sides. No tubercle bacilli were found in the sputum. He was discharged apparently well on July 30th, and was sent to a sanatorium at Weston-super-Mare.

CASE II.—S. L., aged 27, was admitted into the infirmary on June 22nd, 1899, at 11.30 P.M. He stated that he had been out of sorts for some months, and that he had suffered from pain after food, and loss of appetite. There was no history of hæmatemesis or of vomiting. About 7 P.M. on the night of admission he was seized with a sudden severe pain in the upper part of the abdomen, which made him writhe in agony. This pain was paroxysmal in character, the attacks coming on every one or two minutes. He was seen by a medical man, Dr. Girvan, who diagnosed perforating gastric ulcer, and advised his immediate removal to hospital.

On admission he was pale, with an anxious expression of face, and was evidently in great pain. His abdomen was very tense and rigid, and on palpation tenderness was very marked all over it, and especially in the upper regions. The limbs were not drawn up. The pulse was of about normal character. There was no pyrexia and no increase in the respiration rate. His general condition was so good that I decided to wait a little. Morphine, gr. ½, was given hypodermically, and shortly after the pain subsided and the patient slept. All food and liquids were stopped. On the next morning (June 23rd) the patient complained but very little, yet he had some abdominal pain. His general condition was excellent. Two enemata had been given without effect. About midday the pain became more severe, and it seemed to be more marked in the region of the appendix than elsewhere. In the evening the pains became still worse, and the anxious expression returned, his general condition, however, being still good.

At 7.30 P.M., twenty-four hours after the first attack of severe pain, the abdomen was opened between the sternum and umbilicus, and on exposing the stomach, a small perforation was found in the anterior wall near

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.*

By W. JONES GREER, F.R.C.S., D.P.H.IREL.
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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.