SECTION OF SURGERY.

THE SURGERY OF THE STOMACH.

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IN this survey of the surgery of the stomach I will confine my remarks to the treatment of non-malignant disease. I have, indeed, only once attempted resection of part of the stomach for cancer. In that case the patient lived almost three years after the operation.

In dealing with non-malignant disease, I can pass over much which, formerly matter for controversy, has now passed into written law.

Perforated Ulcer.—There has been some difference of opinion concerning technical details in operating for perforated ulcer, some favouring evisceration and douching, others relying on dry sponging. I have myself adopted the former method in four operations which I have performed during recent years; of these, all recovered except one, and in that case, since the operation was delayed until forty hours had elapsed from the time of perforation, the failure cannot be assigned to the method employed. Other surgeons have had equal success without eviscerating or douching. Thus the question does not appear to be one of vital importance. It has been objected that the copious washings are likely to induce subsequent adhesion. In one of my four cases I found it necessary a year later to re-open

the abdomen to perform a gastro-enterostomy, and I found it free from adhesion.

Gastrectasis due to Simple Pyloric Stenosis.—I may be equally brief in reference to gastro-enterostomy as a treatment for stomach dilatation due to simple pyloric stenosis. I have had, in common with most operators, a considerable experience of this class, and the general good results obtained have led physicians to regard these cases as purely surgical. There is, therefore, no necessity to recite particular instances in defence of the operation, and even respecting details of method there is a remarkable unanimity of opinion. No doubt, some of the best surgeons still employ buttons, but by the majority among us these have been discarded for simple suturing. Even with regard to the time factor, which is often important, there is little if any advantage gained by the use of these appliances. I have, where minutes had to be considered, completed the entire operation in twenty minutes, and that without dangerous haste.

Gastric Hæmorrhage.—In gastric hæmorrhage there is more room for debate concerning treatment, but I shall not say much about it because my experience has been very limited. I saw with Dr. Peacocke an extremely anæmic girl, who was brought to the hospital on account of repeated and severe attacks of hæmatemesis. She had for some years been under treatment for gastric ulcer, of which the symptoms had been recurring attacks of severe stomach pain and vomiting. When we saw her she was so extremely weakened by loss of blood that we decided to delay operation. I operated after about a fortnight, and on exploring the stomach I could feel a large ulcer on the posterior wall near the lesser curvature. Posterior adhesions made the gastro-enterostomy difficult, and not entirely satisfactory. However, she had materially im-

proved when she went to the country some six weeks later, and there was no further hæmorrhage. She is now in excellent health.

Two facts stand out clearly relative to these cases of recurring hæmorrhage. One is that such hæmorrhage is directly dangerous to life; the second that operation, generally gastro-enterostomy, has proved successful in a majority of the cases.

The Treatment of Chronic Ulcer.—The case I have just cited will serve to introduce a difficult problem—the surgery of chronic gastric ulcer itself—*i.e.*, apart from its complications. In discussing this problem I shall exclude reference to choice of operation. When I speak of surgical treatment I mean posterior gastro-enterostomy. The solution of the problem is to be arrived at by a consideration chiefly of three things—First, *surgical experience* as regards ultimate result; secondly, *medical experience*—the prospect of cure without resort to operation; thirdly, *relative risk*—the risks of perforation or fatal hæmorrhage in cases treated medically as compared with the risks of operation.

1. *Surgical Experience.*—Among my own cases I have given one in which the result has so far been satisfactory. Another, a young girl, was placed under my care by Dr. Little. She had suffered from stomach pain for twelve years, had vomited blood on several occasions, was much emaciated, and had been confined to bed for nine months before she came to hospital. As the results of operation, this girl is now able to get about, can take her food, and has put on weight, *but* she still suffers from pain. There are, however, some reasons for thinking that the pain in this case is due to adhesions.

My personal experience is not large, but general experi-

ence seems to clearly prove that a cure may be anticipated in a majority of cases operated upon for chronic ulcer.

2. *Medical Experience*.—Now, what is to be learnt from the experience of physicians? With the assistance of the then house-surgeon, Dr. Carter, I investigated the cases of gastric ulcer which had been treated in the Adelaide Hospital during the past five years. We wrote letters asking these people certain questions, with regard to pain, for instance, and in the majority the answers were decidedly unsatisfactory; very few appeared to have been cured of their symptoms. Moreover, all the cases which we have operated upon have been treated medically for years. I think it must be conceded that medical treatment is likely to fail, in a majority of hospital patients, at all events.

3. *Relative Risk*.—I shall now ask you to consider the question of relative risk. I am confident that fatal gastric hæmorrhage and perforation are more common, probably much more common, than was at one time thought. During the past three years I have known of at least three people who died as the result of recurring gastric hæmorrhage. I have referred to four cases of gastric perforation which came under my own care during the past few years, and I am sure others have met with many more than this. We may, then, fairly assume that these catastrophes are not uncommon; that the risks attending chronic ulcer of the stomach are very real. At the same time, I am convinced that relative to the vast number of cases of gastric ulcer which occur in these countries, the catastrophes are uncommon, and, despite the apparent teaching of large hospital statistics, I believe that the risks have been altogether over-estimated. This cannot be said concerning the risks of operation, and yet I know that these also are very real. I have only had one death as the result of

gastro-enterostomy for non-malignant disease; the cause of death was hæmorrhage. That is a very rare accident, but I am sure I am not alone in this misfortune.

In another case a different accident occurred which might have proved fatal, but, fortunately, the patient recovered. This case was one of well-marked gastropptosis and consequent gastrectasis. I performed a posterior gastro-enterostomy, and a few days later re-opened the abdomen on account of persisting regurgitant vomiting. I found that an internal hernia had taken place; a large amount of small intestine had passed beneath the anastomosis from right to left—not, please note, into the lesser sac, which is a less uncommon accident. The bowel at the anastomosis was reddened and distended, whilst that which had passed under the anastomosis was contracted. I reduced the hernia and the patient recovered, but I fear the hope of ultimate perfect recovery is small.

The narration of these two misfortunes is sufficient to enforce my point—that gastro-enterostomy is attended with risks to life. I may further observe that it has lesser risks which, though not affecting life, may materially modify the ultimate success of the operation. I have in mind the possible formation of adhesions due to some error, perhaps unavoidable, in aseptic technique. I once operated upon a lady, who had suffered from gastric pain and other symptoms for many years, and found an extraordinary degree of deformity of her stomach, the result of previous ulceration and associated with adhesions. The stomach was so bent upon itself that the pylorus was drawn close to the cardia, and the lesser curvature was practically non-existent. There was a broad area of fibrosis running across the anterior surface, a dilated pyloric antrum, and a narrowed pylorus. I made a gastro-enterostomy on the cardiac side of the fibrous area, although this side was not

dilated at the time. Good was done for a time, but within a year the patient's sufferings were much as before the operation. I re-opened the abdomen and found an extensive formation of adhesions and a dilated gall-bladder. I freed these, especially about the gall-bladder, and the patient is now in good health.

It is the danger of this formation of adhesions which makes a rigorous asepsis so essential in these operations.

I have dwelt thus at some length upon these possible defects or dangers of gastro-enterostomy because, as I have hinted, I think there has been of late, a tendency to slur them over. At the same time I gladly allow that accidents are decidedly rare. In the large majority of cases recovery is quite uneventful. One can generally count on having the patient able to leave his bed on the sixth or seventh day, and to go home at the end of a fortnight. The fact is, that as with medical treatment so with surgical, the number of fatalities is small, but more, many more, gastro-enterostomies must be performed for chronic gastric ulcer before one can decide to which belongs the greater risk. On the other hand, the ultimate result—the prospect of cure—is infinitely greater with than without, surgical intervention. I shall not attempt to follow out the solution of this problem further, but permit me to point out that the balancing of risks is, after all, only one factor, for the pain, the chronic ill-health and consequent incapacity for work are, under certain circumstances, matters equally important as life itself.

Gastroptosis.—I will conclude my paper with a description of a different class of case, which has not been so widely discussed as the others—*i.e.*, gastroptosis and gastric neuroses. Gastroptosis is by no means necessarily associated with a neurotic state. I saw four or five years ago a middle-aged woman who had a freely movable right

kidney and a dilated stomach. I fixed her kidney. About a year ago she came again to me owing to a return and increase of her stomach trouble. At the operation I found what appeared to be a tumour at the pylorus. I performed a posterior gastro-enterostomy, and soon afterwards reopened the abdomen with the intention of excising part of the stomach, but the tumour had almost entirely disappeared! This patient wrote recently saying that she was in excellent health and free from her former distress.

Gastropotosis is, however, more frequently associated with a neurotic state, but the relation between them is not always the same. We may, I think, recognise two distinct groups. In one the gastropotosis is primary and has induced a neurotic condition in a predisposed individual; in the other the neurosis is primary and the gastropotosis is but a manifestation or result of the general muscular hypotonus, which is so striking a feature of neurasthenia.

That a disordered stomach may cause a disorder of the mind is a matter of common experience, but let me give an example. I saw some time ago a young man who for years had suffered from stomach disorder. He, so to speak, lived for his stomach, and gave up all manner of amusements. He was advised to ride a horse, and did so for his stomach's sake, and gave it up because it seemed to make him worse. He took his stomach for a trip abroad and brought it back as bad as ever. He gave up work in college and devoted his mental powers, which were above the average, to thought about his stomach. He consulted many doctors, and received every conceivable treatment—Weir-Mitchellism, electricity inside and outside of him, and I know not what besides. All with no effect. I found he had a large dilatation of his stomach with much splash, but there was no visible peristalsis. I performed a gastro-enterostomy, and since then he has improved in a striking

manner. He has resumed his college course, takes an interest in the world again, and will, I have no doubt, become a useful member of society. The result in this case seems to show that the gastrectasis, not the neurotic state, was the primary fault. As a fact, at the operation I found evidence of inflammatory changes, for the wall of the stomach was remarkably tough and there were posterior adhesions. My interpretation of the case is as follows:—I believe that the disease had its origin in an attack of measles, which immediately preceded the development of stomach symptoms. This may have caused a catarrh of the mucous membrane, and possibly a loss of muscle tone. As a consequence dilatation began. This, in a person with strong neurotic tendencies, induced the general neurotic state which, once established, tended to perpetuate the atonic dilatation, and thus a vicious circle was established.

In this case, gastrectasis, not gastroptosis, was the exciting cause of the neurasthenia, but I wish to suggest, as a general law, that operation is legitimate, and has a good prospect of curing a neurotic state if there is reason to believe this due to stomach ptosis or dilatation—*i.e.*, if the stomach lesion has preceded the neurotic symptoms.

As regards the second group, in which the gastroptosis is merely a part of a general nervous fault, I believe that operation is useless. I have had such a case under my care; I performed a gastro-enterostomy, and it has been a failure.

And now, gentlemen, I have kept you much too long. I hope what I have said has been of sufficient interest to arouse your criticism.