

CASE OF PYLOROPLASTY FOR NON-MALIGNANT STRICTURE OF PYLORUS. RECOVERY.

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[Read in the Section of Surgery, May 14, 1897.]

IN February last I was asked by my colleague, Dr. M. A. Boyd, to see, with a view to operation, a labouring man, aged twenty-nine, whom Dr. Boyd had diagnosed to be suffering from dilatation of the stomach, probably a result of stricture of pylorus.

History.—The history of the case was that for the past nine years patient had been suffering from attacks of illness accompanied by vomiting and slight pain in the region of the stomach. The attacks, which lasted for varying periods from one to two or three weeks at first, recurred at intervals of three or four months, and of late their duration had greatly increased. The present attack had begun in May, 1896, since which time he had been continuously suffering more or less up to the present time.

During the months of June and July last the pains and vomiting had considerably abated, but in the middle of August they became very severe, and had continued without one week's intermission up to date of admission to hospital, on January 16th, 1897. Since October last he had been extremely weak. His dietary had usually consisted of—breakfast, oatmeal porridge; dinner, potatoes, cabbage, and bacon; supper, oatmeal porridge.

On admission he was found to be pale and anæmic, greatly emaciated, and extremely feeble. Examination showed decided prominence of the upper part of the

abdomen on the left side, with relative depression of the epigastrium; there was great extension of the area of stomach resonance. The splash sound was elicited on percussion. He vomited usually about twice in the day a large quantity of some frothy matter, and the vomiting was usually followed by some relief of pain in the stomach, which was always greatest when the amount vomited was large—two quarts or more. Free HCl. was found in the vomited matters, and considerable quantities of indican were reported by the pathologist to be in the urine.

The patient's condition was such as to render any operative procedure both dangerous and unpromising in the extreme, but as it was evident that he could not last very long without relief, and as his life seemed utterly miserable, I had no hesitation in recommending him to have the operation of pyloroplasty performed, as it seemed to me to give him the only chance, although a small one, of cure. The patient himself eagerly accepted the proposition, and indeed he repeatedly urged me to accelerate my preparations.

On February 26th last I performed the operation, assisted by my colleague, Mr. P. J. Hayes. From what I had read on the subject, and from my experiments on the dead subject, I had been under the impression that the operation would be short and easy. I found it, however, to be very much the reverse. I first made an incision in the linea alba between the sternum and the umbilicus, about 3 inches long, which subsequently I had to extend considerably. The stomach was enormously dilated, and the pylorus was found to be tied down towards the spine by numerous adhesions. It was quite impossible to bring it out of the abdomen, as I had easily done on the dead subject, or even near to the incision in the abdominal wall, and I was

compelled to work at the bottom of a deep hole at a very great disadvantage.

I made an incision in the anterior wall of the stomach, parallel to the long axis of the pylorus, and introduced my little finger into the stomach. After some delay the pylorus was found; it was tightly closed, and it was impossible to introduce the tip of the little finger. I then prolonged the incision through the pylorus by cutting with scissors, and then on into the duodenum for about $1\frac{1}{2}$ inches, the entire incision being about $3\frac{1}{2}$ or 4 inches long. The pylorus was found to be greatly thickened, and there was what seemed to be an old cicatrised ulcer, with thickened base, on the posterior wall of the stomach close to the pylorus. The cut surfaces bled freely. After arresting the hæmorrhage with forcipressure forceps, the lips of the wound were caught with a tenacula at the middle of the incision, corresponding to the site of the contracted pylorus, and the edges were drawn as widely apart as possible. Two strong silk sutures were passed outside the tenacula, so as to enable the parts to be kept steady, and the edges of the wound—which was now changed from being a longitudinal one to one transverse to the long axis of the pylorus—were sutured together by a double row of sutures of fine silk, the first including only mucous and muscular coats, the second a row of Lembert sutures only, including serous and muscular coats. These last were reinforced by a few more Lembert sutures where the junction seemed to be weak or at all imperfect.

The process of suturing was extremely difficult and tedious, as the patient was persistently hiccoughing almost all the time, and large quantities of blackish fluid were constantly regurgitating both from the stomach and the duodenum, flooding over the entire area and requiring incessant sponging. The fluid from the duodenum acted

on the epithelium of my fingers so as to make them quite slippery, and greatly added to the difficulty of holding the needles.

The operation lasted nearly two hours, and the patient was so much collapsed that I greatly feared he could not survive the shock, but he rallied satisfactorily, and his subsequent convalescence was quite uneventful. For the first week he was fed by enemata.

I regret to say that he was not weighed before the operation, nor until more than four weeks after, when he had evidently very considerably increased in weight and strength, but even since then he has increased a stone in weight, and he is now apparently in perfect health.

This operation, which was independently conceived by two surgeons—Heincke, who operated in 1886, and Mikulicz early in 1887—is fully described in the fifth edition of Mr. Greig Smith's work on abdominal surgery, where the statement is made that up to Feb., 1893, 53 operations had been reported with 6 deaths.

I have not had time to investigate the recent literature of the subject, but I have obtained particulars of ten cases operated on in England. The first operation by Mr. F. Page, was performed on March 2nd, 1892, and I understand the patient is now in good health. The second by Mr. Pearse Gould, who published a valuable paper on the subject, was also cured. The third by Mr. R. S. Mills, of Windsor, in August, 1893, is also quite well at present. The fourth case by Mr. Rutherford Morrison, in Oct., 1894, and since then three other cases by the same surgeon, of whom two apparently were cured, and the other two recovered from the operation and were greatly relieved, but subsequently suffered from a recurrence of pain and other symptoms of ulceration in the stomach. Of the eleven cases, including my own case, nine recovered and two died.

Of the nine recoveries two were subsequently troubled by recurrence of ulceration. I have no doubt that there have been many others which have not been recorded, but I think that the results of these eleven cases amply justify the operation.

Comparison of Loreta's Operation with Pyloroplasty.—In Feb., 1895, an interesting series of cases, originally published by Mintz, have been quoted by Dr. Hammen, of New York. He collected 22 cases of Loreta's operation, with 13 recoveries—*i.e.*, 59 per cent.; whereas 29 cases of pyloroplasty are mentioned, with 22 recoveries—*i.e.*, 82·7 per cent.

In any case the procedure in pyloroplasty, which leaves a wide opening from the stomach to the duodenum, with the old contracted pylorus forming the posterior wall of the opening, seems in every way preferable to the forcible dilatation of Loreta, which, besides the dangers of unknown injury to the tissues, would always leave a probability of recurrence.

APPARATUS FOR AIR DISTENSION OF BLADDER IN SUPRAPUBIC CYSTOTOMY.

Mr. John Lentaigne exhibited an apparatus for distending the bladder with air in the operation of suprapubic cystotomy. The apparatus consisted of an India-rubber air-pump with reservoir of the same material, similar to that used with the ordinary hand spray; this was attached by means of a rubber tube to a silver catheter, which was introduced into the bladder. In using the apparatus the reservoir was first distended with air, which was then allowed to gradually distend the bladder, and the operation was then performed. If it became necessary to force the bladder forward in the wound, pressure was made on the