PERFORATION OF A GASTRO-JEJUNAL ULCER: OPERATION: RECOVERY.

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THE following case is an addition to the increasing number of instances of perforation of an ulcer which has followed the operation of anterior gastro-jejunostomy. The perforation was into the general peritoneal cavity, and but for the promptitude with which the gravity of the case was recognized by Dr. Currie and subjected to operation, would, like similar cases when overlooked, have ended rapidly in death from suppurative peritonitis. In the proceedings of the Royal Society of Medicine there is a paper by Mr. H. J. Paterson (June, 1909) on the subject of jejunal and gastro-jejunal ulcer following gastro-jejunostomy. Among the cases recorded in it there are 19 in which this perforation into the peritoneum occurred. To these must be added a case published in the *Lancet*¹ recently, and this case, making 21 in all, but inasmuch as in two of these perforation occurred on two separate occasions at considerable intervals, this accident has been known to happen twenty-three times, and operation has been successful in saving life on nine occasions (Goepel 2, Hybrinette 1, Maylard 2, Battle 4). In all anterior gastro-enterostomy had been performed, in one "En-Y," and in this case with lateral anastomosis. A successful result depends more on the time that has elapsed between the giving way of the ulcer and the performance of the operation than on anything else; therefore the life of the patient depends on the ability of the medical man who first sees the patient.

A man, aged 39, had undergone an operation in 1907 by a surgeon in Glasgow for a perforated gastric ulcer, and two months later another operation for the relief of obstruction to the passage of food from the stomach.

He had afterwards enjoyed good health until the morning of August 26th, 1909. That morning, about 8.30, when taking his breakfast, he had been seized with a sudden pain in the upper part of the abdomen on the left side, and had felt sick. He had not, however, vomited. Feeling himself that his symptoms were something like those which he had experienced at the time of perforation of the gastric ulcer, he immediately sent for Dr. A. S. Currie, who, recognizing the serious nature of the man's symptoms, requested an immediate consultation with a surgeon. When first seen by Dr. Currie there was comparatively little dullness in the region of the stomach towards the left, where most of the pain was, but by 11.30, three hours after the commencement of symptoms, a dull area was evidently spreading from this spot, and from the great tenderness which existed down the left side of the abdomen and the rigidity of the left rectus it was considered that fluid was gradually escaping and diffusing itself along this side of the abdomen towards the pelvis. It was diagnosed at this consultation that the patient had a perforated jejunal ulcer, because there was a definite history of stomach operations which could only be accounted for on the supposition that the man had undergone a gastro-jejunostomy on the second occasion. He was removed to a surgical home as soon as possible, and operation performed at 1 o'clock. Dr. Currie administered chloroform, and incision was made through the left rectus muscle. There was some free fluid, thin and without odour, in the left side of the abdomen, running down to the pelvis. A perforation was found at the junction of a coil of intestine with the anterior wall of the stomach, being on the jejunal portion of the junction. There was induration round the perforation, and the coil of intestine which came up to the stomach and formed the loop was a good deal distended and much congested. The opening itself was comparatively small, and was only defined on pressure of the intestine so as to force gas bubbles through it. It was closed with silk Lembert sutures, the left side of the abdomen thoroughly cleansed, some fluid mopped from the pelvis, and the wound in the abdominal wall closed without drainage. The patient made a good recovery, only complicated by a moderate amount of bronchitis.

The amount of fluid free in the peritoneal cavity was comparatively small and of a greenish colour without odour, but gave definite evidence of its presence and diffusion, first by the area which was dull on percussion and the rapid increase of this area as the fluid gravitated towards the pelvis, and secondly by the sharp superficial tenderness which accompanied its spread and indicated its irritating character. The jejunum had been sutured to the lower border of the stomach—and the loop of gut had been joined laterally by some method of entero-anastomosis.

The stomach towards the pylorus was lost in somewhat dense adhesions of long standing. No lymph was found on the stomach or intestine, but the operation was performed under five hours after the onset of the acute symptoms and the perforation was a small one.

The anaesthetic was well borne; during the operation the condition of the patient caused no anxiety, whilst I had the additional advantage of the assistance of Dr. C. Wheen.

In the three other instances of perforation of simple ulcer of the jejunum² on which I have been called to operate the ulcers were on the efferent branch of the intestinal loop of attached bowel. In one the ulcer was not far from the junction ($\frac{3}{4}$ in.), but in all of them the perforation was clearly punched out, and well defined. In this instance the ulcer was situated at the gastro-jejunal junction, and the amount of thickening of the base suggested that the process of ulceration had been a chronic one, in spite of the absence of symptoms preceding the perforation. This perforation was not clearly defined, nor was it in any way punched out. It is interesting, therefore, to note the association of the entero-anastomosis with the anterior gastro-jejunostomy, for the bile and pancreatic secretions would thus pass down the digestive tract without going round by the junction where the ulceration developed. It resembled the more common form of gastric ulcer, whilst the others could not be distinguished from some perforations found, and successfully operated on, in other parts of the smaller gut when typhoid fever³ was present. Similar ulcers have also been met with when there was no evidence of previous operation or of intercurrent disease, as in the most interesting and highly successful cases brought before the Medical Society of London last year by Mr. H. Lett.⁴

These ulcers are so rare after the posterior operations of gastro-enterostomy, that they are likely to become extinct in surgical practice. The posterior "no loop" operation of the Mayos is accepted as the ordinary routine operation excepting when the conditions calling for gastro-enterostomy do not permit of it.

REFERENCES.

¹ Maylard, *Lancet*, 1910, vol. i, p. 497. ² *Lancet*, 1906, vol. i, p. 276. Paterson, *Trans. Roy. Soc. Med., Surgical Section*, June, 1909. ³ H. Mackenzie, *Lancet*, 1903, vol. ii, p. 863. ⁴ *Lancet*, 1909, vol. ii, p. 1143.

RECURRING JAUNDICE IN MOTHER AND INFANT.

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DR. ROLLESTON'S interesting case of jaundice recurring in mother and infants in four successive pregnancies (*JOURNAL*, April 9th, p. 864) recalled to my mind a similar case which occurred in my own practice:

Mrs. H., aged 26, after two normal pregnancies had a bad miscarriage. During the latter part of her next pregnancy she became slightly jaundiced and at the onset of labour very deeply so. The jaundice lasted for about a fortnight after confinement. The child was ill developed, and became jaundiced on the second day, and remained markedly yellow up to its death, four weeks later. The mother's milk was of a bright orange colour, so she only nursed the child for one day.

In her next (fourth) pregnancy a similar sequence of events occurred. This time, however, the child was so weakly that she felt obliged to feed it at the breast, although the milk was again of the same orange colour. The child became jaundiced, and died on the eleventh day.

In her next (fifth) pregnancy the same conditions recurred, but this time the child was much better developed, and she did not feed it by the breast at all as the milk was again of the same colour. The child became jaundiced, but lost its yellow colour at the end of a fortnight. It did not, however, thrive, and died after ten weeks. It suffered towards the end from otorrhoea with some obscure cerebral symptoms.

In her next (sixth) pregnancy she again became jaundiced about a month before her confinement, but this time the jaundice disappeared ten days before delivery. The child, however, became jaundiced on the second day. The mother's milk was again of the same orange colour, although she herself did not appear to be at all jaundiced. The child was never put to the breast, but was at first very weakly, and at 2 years suffered from otorrhoea, which I am told has persisted more or less up to the present time. The boy is now 18, and in other ways fairly healthy.

In her seventh pregnancy she became jaundiced to a slight extent about a fortnight before her confinement, but the yellow colour had disappeared before delivery. The milk, however, was as yellow as on the previous occasions. The child did not become jaundiced, was not put to the breast, but died from diarrhoea (which seems to have been of the usual summer type) at the age of 5 weeks.

In her eighth pregnancy she was not at all jaundiced, but the child was stillborn.