RUPTURED GASTRIC ULCER

TREATED BY

LAPAROTOMY, GASTRIC SUTURE, AND WASHING OUT
OF THE PERITONEUM;

RECOVERY.

BY

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(Communicated by Mr. BABWELL.)

Received January 3rd—Read March 13th, 1894.

Miss C—, æt. 20, had for several months past suffered from pain immediately after taking food, so much so that she had learnt to avoid taking certain things, such as meat and strong tea. She had been somewhat anæmic, but with this exception she had no history of previous illness, and there had been no attack of hæmatemesis. There was no family history of phthisis. Her occupation was that of a draper's assistant.

The present illness commenced as follows :

On December 7th, 1893, having just finished tea, consisting of bread and milk, currant pudding, and tea, she was stooping down to lace her boot, when suddenly she was heard to scream, and said she had most violent pain

in the abdomen ; then followed faintness and vomiting of the food just taken, but the pain continued. Some brandy was given, which very much increased the pain.

When I saw her shortly afterwards she was in bed, lying on the right side with the knees drawn up, moaning with pain, very cold and pale ; the respiration was shallow and quick, 30 per minute, the pulse feeble, 80 per minute. She said she could not get her breath, as inspiration gave so much pain.

On examination the abdominal walls were found to be very rigid. She located the origin of the pain at a point just to the left of the middle line and beneath the free border of the ribs ; pressure here increased it, and as I watched her during the next few minutes she described the pain as unbearable, of a burning nature, and as extending down towards the pelvis and all over the abdomen. On examination *per rectum* all the pelvic organs proved to be normal in size and freely movable. This, together with the fact that the lips and gums remained a good colour, put aside any suggestion of internal hæmorrhage. I came to the conclusion that it was a case of ruptured gastric ulcer, and advised abdominal section without delay.

Dr. Burton-Fanning and Mr. Walters saw her with me shortly afterwards, and agreed in the diagnosis and treatment. A quarter of a grain of morphia was given subcutaneously. Dr. Burton-Fanning gave ether ; Mr. Walters assisted me ; it was now nearly five hours since the commencement of symptoms. The abdomen was opened just to the left of the middle line above the umbilicus, the upper extremity of the incision being placed at the lower margin of the cartilages of the ribs, and extending downwards for three inches. As soon as the peritoneum was opened, the contents of the stomach were seen to be scattered all over the intestines ; they consisted chiefly of milk with some bread crumbs and currants mixed with mucus. The whole stomach was then withdrawn from the opening, and wrapped up in hot sponge-cloths ; both its surfaces were searched for a perforation, which after

some difficulty was found high up under the ribs on the anterior surface, and close to the cardiac orifice; it was about the size of a cedar pencil, and quite circular.

I dilated it sufficiently to admit one of Lawson Tait's half-inch cannulas used for washing out the abdomen; through this I removed all the remaining contents of the stomach by alternately filling it with water and squeezing it out again.

I then, with a series of Lembert's sutures of chromic gut, introduced with a curved needle, completely closed the opening by inverting a piece of the stomach wall so as to bring into contact its peritoneal coat over a space nearly two inches broad, that is, one inch on either side of the perforation; the stomach was then replaced within the abdomen. I next proceeded to wash out of the peritoneal cavity the matters which had been extravasated. To facilitate the return of the water, I passed in by the side of the tube of the irrigator a long half-inch glass tube, and by moving these two tubes about together I went systematically all over the abdomen until the water returned from every point quite clear. As much as seventeen pints of hot water (temp. 105°) were used in this way. I then put in a long glass tube downwards towards the pelvis, and united the wound with fishing-gut sutures and dressed it.

The operation lasted an hour and twenty minutes. The patient bore it well, and by the end of it the pulse had improved considerably. After waking up from the anæsthetic she at once went off to sleep, and slept for two hours, after which she expressed herself as comfortable and almost free from pain.

The after-treatment consisted in giving nothing at all by the mouth for the first sixty hours. During this time enemata of peptonised milk, peptonised beef tea, and warm water were given in succession at intervals of six hours, commencing with five ounces, and, as this was well borne, increasing the amount to ten ounces, and adding also one ounce of brandy. Besides this one of Slinger's

nutrient suppositories was given every twelve hours. All of these were retained.

The drainage-tube was left out after twenty-four hours, and feeding by the mouth was commenced most cautiously after sixty hours as follows: First water only was given, two drachms every hour, which was soon increased to four drachms every hour. At the end of the next twelve hours she was taking one ounce of milk and one of water every two hours. Seventy-two hours after the operation she was taking four ounces every three hours, consisting of milk and water, milk and barley water, and beef tea. None of these gave any pain. By degrees she had more and more, and on the fifth day she had farinaceous food, and fish on the seventh day. The remainder of her convalescence was uninterrupted.

At the end of three weeks the wound had quite healed, and she was allowed to get up for half an hour. Neither this nor the taking of food gave any pain at all, and in fact she was then quite well.

I wish to call attention to the fact that washing out the peritoneal cavity with a large quantity of hot water relieved the condition of shock, partly no doubt by the heat thus conveyed, but more especially by removing the irritating material, viz. the contents of the stomach.

I am not aware that up to the present time there has been a single other successful case of this operation in this country, when performed, as in this case, for acute perforation of the stomach. Unsuccessful cases have been reported in the 'British Medical Journal' for the past year, 1893, where the subject has been fully and ably dealt with by Mr. Barling, June 17th, and by Mr. Haslam, November 11th.

Cases of Ruptured Gastric Ulcer in which, after laparotomy, the perforation was found and closed by suture.

Name of operator.	Date.	Time that elapsed between perforation and operation.	Publication.	Result.
Taylor, J. W.	1887	24 hours	Birming. Med. Review	Died.
Czerny	1887	2 days	Internat. Med. Mag.	Died.
Kriege	Oct. 24, '88	57 hours	Rev. Internat. Therapeut. et Pharm.	Died in 10 days.
Mickuliez	June 23, '89	24 hours	" "	Died in 24 hours.
Kriege	May 20, '92	17 hours	" "	Recovered.
Steinthal	—	50 hours	" "	Died in 9 hours.
Stelzner	—	18 hours	" "	Died in 10 days.
"	—	48 hours	" "	Died in 4 days.
Le Dentu	—	4 days	" "	Died.
Taylor, J. W.	Nov. 1, '90	24 hours	Prov. Med. Journ.	Died in a few hours.
Weir	Jan. 18, '91	4 days	Internat. Med. Mag.	Died.
Gilford	Oct. 19, '92	10½ hours	Brit. Med. Journ.	Died in 4 weeks.
Anson	Sept. 12, '92	24 hours	Lancet, 1893	Died in 6 hours.
Haslam	Feb. 2, '93	3½ hours	Brit. Med. Journ., 1893	Died.
Barling	—	6 days	Brit. Med. Journ.	Died.
Morse	Dec. 7, '93	5 hours	—	Recovered.

In addition to the above, several cases have been reported in which the edges of the perforation were sutured to the abdominal wound, *vide* Clinical Society's 'Transactions,' vol. xxvi, a case by W. Lee Dickinson and Warrington Haward.

(For report of the discussion on this paper, see 'Proceedings of the Royal Medical and Chirurgical Society,' New Series, vol. vi, p. 70.)