

PTOSIS OF THE THIRD PORTION OF THE DUODENUM WITH OBSTRUCTION AT THE DUODENO-JEJUNAL JUNCTION *

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PATHOLOGIC descent of the third portion of the duodenum associated with obstruction at the duodeno-jejunal junction has been given almost no attention by the numerous students of visceroptosis. That there are many individuals suffering from chronic digestive disturbances because of this condition is certain. The symptoms may vary in severity from occasional mild attacks of nausea and vomiting to an almost constant invalidism from duodenal obstruction and retention. The symptoms may simulate cholecystitis, gastric or duodenal ulcer or appendicitis, and patients have been operated under such mistaken diagnoses, but, of course, without the expected relief.

The writer has had the opportunity to operate on several patients for this condition and the results have been so satisfactory that a more careful study of the symptoms, causes, methods of diagnosis, and the technic of surgical relief has seemed highly justified.

The usual symptoms are: Epigastric distress or pain beginning and lasting a variable period after meals; periodic attacks of headache; nausea and vomiting of bile—the classic “bilious attack.” The pain is usually not severe enough to incapacitate the patient from work, except during the period of vomiting. During these attacks a couple of days may be spent in bed before the duodenum ceases to regurgitate. Fluoroscopic examination of the stomach and duodenum with barium meal will demonstrate the low situation of the dilated loop, as well as the obstruction to the emptying of the duodenum.

At operation the dilated duodenum may protrude into the abdominal cavity like a large pouch below the transverse mesocolon. The jejunum is abnormally small and the obstruction at the duodenal junction is plainly visible. In all the cases operated the superior mesenteric vessels and an abnormal ingrowth of fibrous bands along these vessels have been the apparent immediate cause for the obstruction. More fundamental causes will not be discussed at this time.

In view of the futility of medical treatment in the more aggravated cases and of the impossibility of relieving the obstruction satisfactorily without causing damage to the superior mesenteric artery, a short-circuiting operation was adopted. Duodeno-jejunostomy was made between the bulging duodenum and the descending jejunum. This operation was made in five patients in the years 1916 and 1917. The results have been all that could be desired in the four patients who have been

* Subject presented at the Western Surgical Association, December 19, 1919.

PTOSIS OF THE THIRD PORTION OF THE DUODENUM

under observation. No report has been obtained from the fifth, but on leaving the hospital this patient was apparently cured from a previous p. c. nausea and distress.

The following clinical history describes one of the two most aggravated of the five cases. A correct diagnosis was not made before incision. With more röntgenologic experience it has been possible later to diagnose the trouble by means of the fluoroscope. It is believed that this pathologic condition of the duodenum is a disease not at all uncommon, and that more careful search with fluoroscope and more diligence in abdominal exploration will prove this belief to be well founded.

E. N., school girl, seventeen years old. With the exception of scarlet fever and measles she was in normal health until about the age of eight, when present trouble began. Chief complaint: "Pain in stomach." During first three or four years the pain would come on immediately after eating and last one-half to one hour. The pain seemed to be worse every second day and was often associated with vomiting of bile. After profuse emesis there would be a certain amount of relief for a day. During the next four or five years the pain and emesis were less constant, but there was vomiting of bile at least once a week. Appendectomy made three years ago did not give relief. The pain has become much worse during the past three months. It is present after each meal and sometimes before breakfast. Quality of food makes no difference. It is worse when riding than when walking. She has a constant, dull headache. Vomiting of bile takes place almost daily and is followed by relief from pain until after the next meal. Bowels are constipated and move only every two to five days. Laxatives increase pain.

Family History.—Father died from accident. Mother well, but thin and looks poorly nourished; has had "poor digestion" always. Brothers and sisters well.

Examination.—Girl rather small in stature, thin and anæmic; narrow chested, thoracic organs normal. Abdomen somewhat prominent, muscles relaxed. Narrow through epigastrium; evident ptosis of stomach and intestines. Very tender to deep palpation in epigastrium and to right of navel. Gall-bladder region not tender. Ptosis of both kidneys. Blood examination showed a simple anæmia and the urine had a trace of albumin. Test meal showed gastric juice practically normal; barium meal and X-ray proved a ptosis of the stomach and to a point near pubes. There was no retention in the stomach and no abnormality found in its walls, but part of meal was found in second portion of duodenum. Most of meal was in ileum (partly confused, no doubt, with the unsuspected descended loop of duodenum), and some in cæcum, both lodged in the pelvis. It was surmised that a chronic ulcer of the duodenum with possible adhesions and traction caused the chief symptoms, and operation advised.

Operation (November 25, 1916).—Median incision. Examination of stomach on both sides negative, except for its abnormal descent. Duodenum showed no evidence of ulcer, but there was a

definite membrane attached to the lower part of the descending portion and passing upward and outward to become incorporated with the under surface of the liver to the right of the gall-bladder. Gall-bladder and ducts seemed normal and were entirely free from the membrane. There were no palpable lymphatic glands about the duodenum or pylorus. The cæcum rested in the pelvis, and so did the big bulk of the small intestines. A small omental tag was adherent at the old appendiceal scar. When the transverse colon and omentum were lifted up, it was found that the third portion of the duodenum had descended from its usual situation behind the transverse mesocolon and occupied a pocket behind the peritoneum. It was markedly dilated and formed a "U" with its angle reaching to a point near the pelvic brim. The distal end passed upward to the superior mesenteric artery. This ascending part was over two inches in diameter, with a decided thickening of the walls. The dilatation ended abruptly at the superior mesenteric artery in an abnormally narrow jejunum. The dilated duodenum contained fluid and gas and formed a pouch which extended forward into the abdomen, the small jejunum and its mesentery resting against the side of the pouch. It was clear that the bowel was constricted at the point where it passed the superior mesenteric artery and that the constriction had been chronic enough to cause both dilatation and hypertrophy of the duodenum. Moreover, there could be no doubt as to this being the lesion causing the persistent symptoms.

An effort was made to push the duodenum upward, but to retain it in an elevated position so as to insure certain and permanent drainage past the obstruction, seemed impossible. It would have required extensive dissection and preparation of space behind the peritoneum at a higher level together with a permanent closure of the large pocket now chronically occupied by the ptosed organ. Release of the obstruction by dissection of the fibrous ingrowth about the superior mesenteric vessels would have jeopardized their function. It was concluded, therefore, to make an anastomosis between the duodenum and the jejunum, for the purpose of short-circuiting the duodenal contents. An incision one and one-half inches long was made in the peritoneum over the most prominent part of the ascending part of the duodenum. The duodenum was pulled out sufficiently through this incision to permit easy placing of two rows of sutures, an outer linen and an inner chromic catgut—Quain's sewing-machine stitch—around an opening one inch long through the duodenal and jejunal walls. A few plain catgut sutures fastened the margins of the peritoneum to the suture lines and obliterated the small gap between the two loops of bowel above the anastomosis. The wound was closed and the patient made a rapid and uncomplicated recovery.

All abdominal symptoms, with the exception of a continued sluggishness of the bowels, disappeared after the operation. Final results, December, 1919, three years after operation: Had no further stomach trouble; general health excellent; gained 30 pounds in weight; graduated from Normal School.