ANNALS OF SURGERY

VOL. XLVII JANUARY, 1908 No. 1

ORIGINAL MEMOIRS.

THE RELATION OF THE MESOCOLIC BAND TO GASTROENTEROSTOMY.

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OTHER things being equal posterior gastrojejunostomy is the operation of choice. This does not mean, however, that the anterior method has become obsolete, but rather that its field of usefulness has been greatly curtailed. All of our earlier operations were made anteriorly, and a number of cases operated upon more than five years ago are to-day in perfect health.

The elimination of the loop has, I believe, been a most important step in advance. The great advantage of the posterior over the anterior method lies in the fact that the anterior requires from 16 to 20 inches of jejunum for the loop around the transverse colon, while no loop at all is necessary in the posterior method.

In the April number of the ANNALS OF SURGERY, 1906, page 537, I called attention to the fact that in the living subject the first portion of the jejunum usually passed from the duodenojejunal angle downward and to the left, and for this reason advised that the jejunum be applied to the posterior wall of the stomach so as not to disturb this normal relationship, instead of turning the bowel on a short angle to the right as had been the custom.

There seems to be some difference of opinion as to just what constitutes the "no loop" operation and particularly as to the frequency with which in the living subject the jejunum passes from its origin to the right. I think that much of the misconception as to the anatomical relationship comes from the variation in degree with which the peritoneal suspensory ligament extends down from the transverse mesocolon upon the upper part of the jejunum. The ligament of Trietz is an unimportant muscular structure covered by a small peritoneal fold as in Fig. I; but this peritoneal reflection may be of such extent as to project downward several inches, as in Fig. II.

It can readily be seen that as the intestinal coil is formed this peritoneal adhesion may extend so far down upon the coil as to reach the jejunum after it has turned to the right, and if the gastrojejunostomy is placed at this point, the intestine will be applied to the posterior wall of the stomach, not in the "no loop" position but upon a loop of from 4 to 6 inches; a situation which experience has shown to be exceedingly liable to give rise to bile regurgitation such as so frequently occurred in the "loop" operations of the past. The operator would erroneously believe that the jejunum turned to the right and that he had made a no loop operation while as a matter of fact a loop was present but more or less concealed in the investing peritoneum. (Fig. III.)

When such peritoneal bands or adhesions exist to any considerable extent they should be trimmed back to expose the origin of the jejunum which will, in the great majority of cases, now be found to run in the normal direction to the left, and the gastrojejunostomy can be made at the beginning of the jejunum in the area which has been denuded of the adhesions. (Fig. III.)

When this peritoneal band is pulled upon it will be found that it has its origin in the transverse mesocolon close to the left margin of the branch of the middle colic vessel which is to be seen in the drawings just to the right of the duodenojejunal juncture. The avascular space in the mesocolon lies

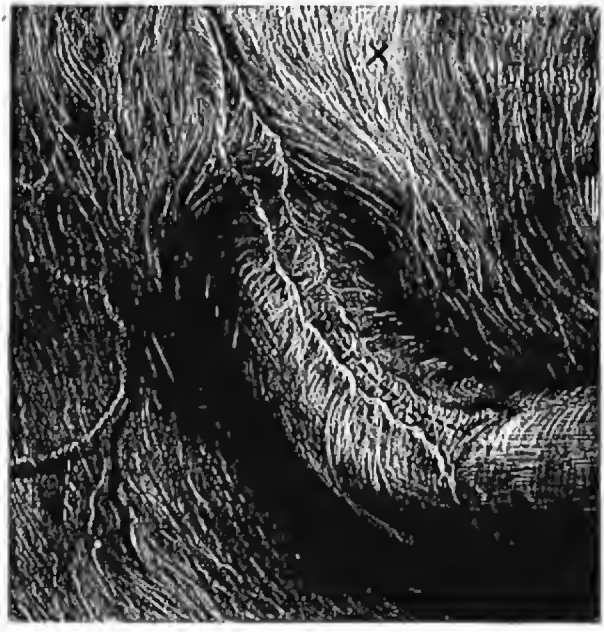
FIG. 1

Showing small peritoneal fold, with intestine passing to the left. Normal form.

FIG. 2.

Showing extensive peritoneal fold which turns the intestine to the right.

FIG. 3.



Shows the peritoneal fold separated. Dotted line shows proper situation for a no-loop gastro-enterostomy. X marks the point in the transverse mesocolon, where the stomach is to be brought out.

to the left of this adhesion, and through this space the posterior wall of the stomach should be brought out for operation.

There are several situations in the abdomen where peritoneal bands or adhesions are occasionally to be found. These bands may vary within wide limits and again be so frequently absent as to lead to the belief when they are present, that they are pathological; since disease may produce similar results.

In the fœtus the lesser cavity of the peritoneum extends down between the omental fold. Soon after birth obliteration has usually extended as high as the transverse colon, and in the adult the obliteration frequently extends higher, especially along the pyloric half of the stomach, so that posterior adhesions limiting the lesser cavity of the peritoneum may be mistakenly thought to be the result of disease. Peritoneal adhesions of the same character are often found connecting the sigmoid flexure of the colon to the pelvic wall. A very common example is the peritoneal reflexion which sometimes joins the gall-bladder on its inner inferior aspect, with the duodenum and transverse colon greatly resembling adhesions produced by cholecystitis.