

Antrum Preserving Double Tract Method for Reconstruction Following Proximal Gastrectomy

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ABSTRACT: The antrum preserving double tract method was originally designed in order to gain the smooth transfer of larger foods through the duodenal route. Surgical improvement was then made at a few points when carrying out the anastomosis between the residual stomach and the jejunum. In the clinical field, this method is characterized by a better transfer of large foods into the duodenum than the conventional double tract method. The clinical investigation revealed that gastrin release remained after the operation due to both the good passage and the presence of food in the residual stomach. The antrum preserving double tract method is a reasonable and simple method which can maintain physiological pancreaticocibal synchronism.

KEY WORDS: double tract method, proximal gastrectomy, pancreatico-cibal synchronism

Selecting the best method of reconstruction following gastrectomy has been a major problem of postoperative rehabilitation. The double tract method has usually been applied following most proximal gastrectomies, however, in some cases when the double tract method is used, food does not always enter the duodenum smoothly. We have therefore designed some improvements to the anastomosis following proximal gastrectomy.

Following the proximal gastrectomy, a selected jejunal portion with its stem is elevated at the retrocolic position and esophago-jejunosomy is carried out. Gastro-jejunosomy is then performed about 40 cm distally from this anastomosis, between the residual stomach and the jejunum, after the residual

stomach has been twisted 180 degrees anteriorly beforehand. After the gastro-jejunosomy, seromuscular sutures are inserted to reinforce the posterior wall, after which the twisted residual stomach is restored to its usual position. The jejunum is then shaped like the letter "N" around the gastro-jejunosomy (Fig. 1), thus enabling food to enter the residual stomach more easily because the sharp angle of the jejunum on the lesser curvature reduces the out flow of contents.

Various reconstructive methods after proximal gastrectomy have been proposed according to the location, size and stage of cancer. From the view point of rehabilitation, it has been reported that the postoperative nutritional condition and working efficiency of the patients could be improved by retaining the antrum. We have been adopting the double tract method which may be characterized as an intermediate method between the Roux-Y method and the jejunal-interposition method for reconstruction after proximal gastrectomy.

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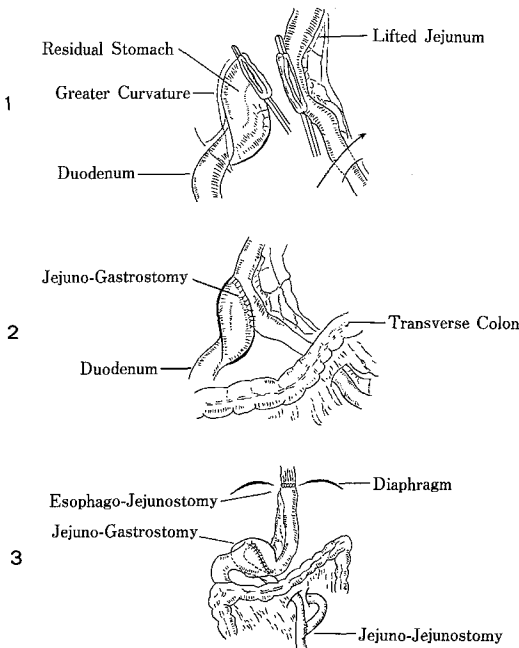


Fig. 1. Operation method of N-shaped double tract method.

- 1, The residual stomach is twisted anteriorly by 180 degrees.
- 2, The seromuscular sutures are inserted to reinforce the posterior wall before restoring the twist.
- 3, After the gastro-jejunostomy, the twisting of the residual stomach is restored to its usual portion.

This double tract method may have advantages, such as increased ingestion due to a better mixing of digestive juices, however, in some cases the food does not always enter the duodenum as smoothly as expected. This might cause gastropnoia and a sphincter disorder of the residual stomach. Consequently, we improved both the method of anastomosing the lifted jejunum, and the residual stomach.

The results of our investigation on gastrin release revealed that remaining responses were found in this N-shaped double tract method due to the flow of larger quantities of food into the antrum of the residual stomach. This method is very simple and no adverse reactions have been observed.

(Received for publication on Apr. 18, 1986)

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