



LETTER TO EDITOR

A modified technique of biliary-enteric anastomosis with two-point interrupted eversion suture on the posterior wall: A surgeon's experience



Dear Editor,

We have recently read the article "A modified technique of pancreaticogastrostomy with short internal stent: A single

surgeon's experience" published in your journal by Pei Yi Yap et al. from Sunway University, Malaysia,¹ in which a modified pancreaticogastrostomy (PG) for digestive tract

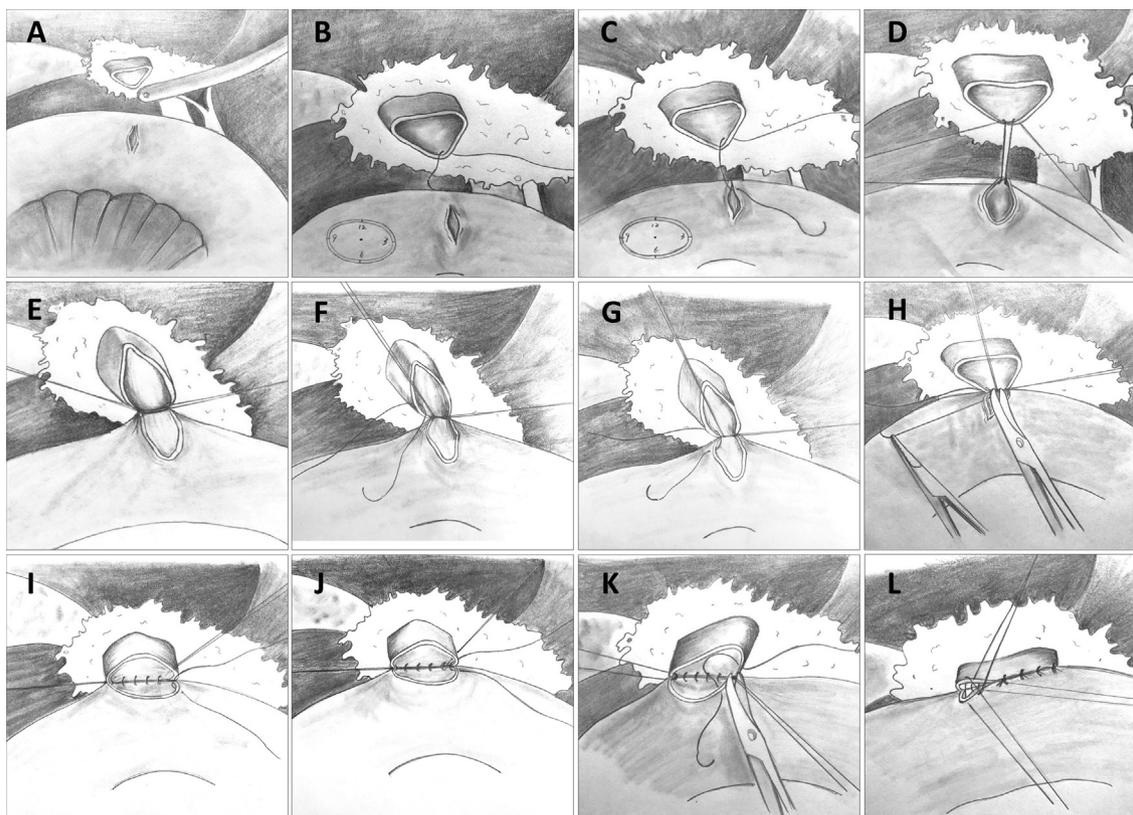


Fig. 1 Schematic illustration of the modified BEA.

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reconstruction during pancreaticoduodenectomy (PD) was described. Two-layer pancreatic anastomosis with an internal pancreatic duct stent tube was used. In the pancreaticoduodenectomy (PD), biliary-enteric anastomosis (BEA) is also a very important step in the reconstruction of the digestive tract. We believe that proper and high quality anastomosis is critical for reducing postoperative biliary leakage and anastomotic stenosis. (see Fig. 1)

Here we would like to describe our clinical experience on a modified technique of BEA which could reduce the biliary leakage and anastomotic stenosis dramatically. In our surgery, using an electric knife, cut in the anterior wall of the jejunum 1 cm away from the mesenteric margin. In addition, the first needle enters the needle from the middle point of the posterior wall (6° 'clock). Then entering the needle from the inside of the intestine. (12° 'clock). The second needle should be taken from the side of the operator (clockwise) with the first needle at an appropriate distance. The needle is inserted from the outer wall of the bile duct, and then the needle is inserted from the inner wall of the intestine. The bile duct and intestine are closed and knotted. The first stitch pulls to the left as a traction line. The second stitch serves as the mark line for the third stitch and is lifted forward and upward by a helper. Clockwise, the operator uses non-invasive tweezers to gently pull the posterior wall of the bile duct and identify the position of the second needle. Suitable margin and spacing should be used to suture the third needle bile duct side according to the above method. Gently pull the muscularis of the bowel side and stretch it out to find the second needle suture point. Third needles are inserted into the intestine. After the third needle is sewn, the suture is not tightened. The second stitch is cut first and then the third stitch is tied. The knot retains the proper length. Suture the right side of the posterior wall by the above steps. After finding the first needle indication point, take the appropriate spacing, make an anastomosis clockwise, and insert the needle outside the intestine. Cut off the knots of the previous needle before tightening the knot. The last three stitches are not knotted at the moment. Finally, all sutures are tied, and the anastomosis is completed.

A total of 19 patients who underwent PD between 2015 and 2019 was retrospectively analysed.² All of them were recovered smoothly. None of the 19 patients had biliary leakage and anastomotic stenosis, and no postoperative pancreatic fistula was observed. During the postoperative hospital stay, complications occurred in 4 patients (21.1%): an acute respiratory failure, a gastrointestinal fistula with lung infection, a delayed gastric emptying, and a peripheral effusion of the liver.

In summary, it is critical for surgeons to pay much attention to the surgical details in end-to-side BEA. The surgeon's experience and considerations demonstrated here will be certainly provide valuable instructions for in young surgeons in their future end-to-side BEA surgeries. Future randomized, large-volume trials are required to corroborate our preliminary results.

Conflicts of interests

All the authors have no potential conflicts of interest to disclose.

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