

Peer Review File

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Reviewer A

The authors evaluated short-term outcomes following pancreatoduodenectomy with a modified single-needle continuous suture of duct-mucosa pancreaticojejunostomy (SNCS) compared with double-layer continuous suture of duct-mucosa PJ (DLCS) in open pancreaticoduodenectomy (OPD). A total of 66 pairs were successfully matched using propensity score matching (PSM) in OPD. No significant difference was observed in the occurrence of CR-POPF between two groups (8.5% VS 19.7%, $P=0.054$). However, the median duration of operation and PJ was shorter in SNCS group. The incidence of CR-POPF in laparoscopic pancreaticoduodenectomy (LPD) was 9.5%.

This study includes several new findings. However, I have several criticisms as follow.

Comment 1: It is intuitively understandable that using a single continuous suture in pancreatic jejunal anastomosis shortens the operative time. Was it correct to interpret that the reduction in pancreatic fistula rate was due to the fact that there was no full-layer pancreatic jejunal mucosa anastomosis using absorbable 5-0 suture material? Further discussion is needed on this paper (page 10, lines 19-21).

Reply: Thanks for reviewer. Our study demonstrated that the use of SNCS resulted in a reduction in the rate of postoperative pancreatic fistula (POPF) compared to the control group, although this difference was not statistically significant. In contrast to absorbable suture materials, Polypropylene Monofilament Suture exhibits characteristics such as slow degradation, controllable tension, and ease of knot tying. Consequently, it is more suitable for single-layer continuous suturing. A previous study reported that suturing with Polypropylene Monofilament Suture did not lead to an increased incidence of POPF. However, there is a scarcity of high-quality clinical studies directly comparing these two suture materials.

Changes in text: We have added this information(see Page 11, line 14-19) and marked in red.

Comment 2: We need a detailed explanation of how thread handling was performed in the duct-to-mucosa anastomosis. Especially in LPD, it would be better to explain how the slack thread was pulled to the appropriate tension level after needle movement.

Reply: Thanks for reviewer. Suture line tension is maintained by pulling the suture taut. The prolene sutures are smoother. After the posterior and anterior walls have been sutured, the suture is carefully pulled taut and tied. When tightening the sutures, slow and continuous force should be applied to maintain proper tension.

Changes in text: We have added this information(see Page 7, line 7-10) and marked in red.

Comment 3: In Fig. 3B, the pancreatic duct is hidden by the needle holder. Are there any other figures?

Reply: We have replaced the original picture with a new picture .

Changes in text: Figure. 3B

Comment 4: It said that all surgeries were performed by the same team, but was there any difference in the number of surgeons who actually performed the needle manipulation between the two groups (page 4, lines 17-18)?

Reply: All the pancreaticojejunostomy were performed by the same surgeon.

Changes in text: We have added this information(see Page 4, line 19-20) and marked in red.

Comment 5: Regarding as the stents, we need to know the specific thickness and length of the stent, whether there was a lateral hole or not, and whether they were internal or external stents (page 6, lines 17-18).

Reply: Thanks for reviewer. The stent tube was cut 2–4 side holes at the insertion end. The length of stent in the pancreatic duct was 4-5 cm, and the length in the jejunum was approximately 8-10 cm, beyond the bilioenteric anastomotic site.

Changes in text: We have added the information of the stent in this article(see Page 7,line2-4) and marked in red.

Reviewer B

The present study "A modified single-needle continuous suture of duct-to-mucosa pancreaticojejunostomy in pancreaticoduodenectomy" aims to evaluate the safety of modified single-needle continuous suture of duct-to-mucosa and compare the efficacy with double-layer continuous suture of duct-mucosa PJ in pancreaticoduodenectomy. This is a retrospective study comparing 66 patients of each group after propensity score matching.

The study shows statistically significant differences in terms of the reduction in the time of performing PJ in favor of the single suture (9 vs 13 min) and in the total operating time, whose median only decreases by 5 min (220 vs 225 min), which makes it not relevant.

No differences are shown in the rate of clinically relevant postoperative pancreatic fistula or other complications derived from pancreatic surgery (biliary fistula, hemorrhage, delayed gastric emptying, intra-abdominal collections, readmission rate, etc.).

The technique presented is similar to others described in the literature (e.g. references 13 and 14) without offering any type of advantage.

In the presentation of the results, the rate of complications in general or the rate of major complications is not described. Likewise, complications are described in a generalized

way without defining their degrees according to ISPGS.

In summary, it is a work whose results do not offer any advantage with other similar techniques already described and, therefore, it has no relevance for the scientific community.

Reply: Thanks for reviewer. Compare to other PJ methods, SNCS further simplifies anastomotic process. Continuous-suture anastomosis with same suture distributes the tension evenly and shortens the operation time. Some methods were performed using interrupted suturing technique(e.g. references 13 and 14) .Only single-layered suture was used to connect the pancreatic parenchyma to the seromuscular layer of the jejunum and the pancreatic duct to the mucosal layer of the jejunum. Some single-layer sutures connect only the pancreatic parenchyma to the seromuscular layer of the jejunum(e.g. references 25 and 26).A single-needle full-layer suture was used to achieve the effect of double-layer suture. As shown in Table 6, SNCS significantly reduces the anastomotic time compared to other methods in LPD. It is particularly suitable for LPD and is beneficial for beginners

Post-pancreatectomy hemorrhage (PPH) and delayed gastric emptying (DGE) were defined according to ISGPS definitions. In the results section we have added a description of the general complication rates

Changes in text: We add the information of the stent in this article(see Page 5, line 20-21 and Page 7,line1. Page 8, line 20-22 and Page 9,line1) and marked in red.