Answers to Reviewers

We thank the reviewers for their interest in our work and helpful comments that will greatly improve the manuscript and we have tried to do our best to respond to the points raised. And we also had the paper revised by a native English speaker before resubmitted. The responses to the reviewers' comments are presented following.

Reviewer #1:

Q1: There is no novelty to the field with his paper.

Answer: Thanks for the suggestion. Since it still remains controversial whether central pancreatectomy (CP) can remain more remnant pancreatic endocrine and exocrine function after surgery or not, in this study we evaluated the safety and efficacy of CP compared with distal pancreatectomy (DP). And we hope this work might support the opinion that CP is as safe as DP, and can preserve more pancreatic endocrine and exocrine function.

Q2: What does it mean in inclusion criteria for radical surgery? Usually, it refers to malignant pathology. Please clarify.

Answer: Thanks for the suggestion. Since the benign or low-grade malignant pancreatic tumors were enrolled in this study, and some benign lesions can be diffused in pancreas. The radical surgery used in the inclusion criteria indicated the complete resection of the lesions.

Q3: The DP group also includes patients with and without splenectomy. It would be of interest for the readers the comparison with spleen-preserving only DP. How many patients in the DP group have had associated splenectomy, and why?

Answer: Thanks for the suggestion. We added the data in table 2, and there were 123 (46.9%) patients in DP group receiving the associated splenectomy. Splenectomy mainly due to the tissue adhesions or preoperative diagnosis of malignancy.

Q4: How do the authors explain the low rates of severe complications, grade B-C postoperative fistula, and readmissions compared with previously reported large series from other high-volume centers?

Answer: Thanks for the suggestion. We reviewed the data, and the incidence of grade B-C postoperative fistula, and readmissions was as such in manuscript. We found some mistakes in Clavien-Dindo classification, and revised the data in the table 2. No significant difference was observed in overall morbidity between the two groups either, and morbidities in two groups were all within Clavien–Dindo grade IIIb.

Q5: The postoperative follow-up period is not given to see the endocrine and exocrine insufficiency rates over time.

Answer: Thanks for the suggestion. Since this is an retrospective study, some follow-up data is not complete over time. We chose 12 months after surgery as an evaluation timing and follow-up data of endocrine and exocrine function was complete. This is one of the limitations of this study.

Q6: Although many papers consider the first report of a CP by Guillemin and Bessot in 1957, in their paper, there is no resection of the mid-portion of the pancreas but just a transection of the pancreas (an unintentional one!). The modern technique of CP should be attributed to Dagradi and Serio from the Verona group (many papers signed

by Iacono C and co-workers). Interestingly, it appears that the first CP was reported in 1910 by Finney (Finney JM, Ann Surg, 1910; 51:818-29).

Answer: Thanks for the suggestion. We reviewed the papers you mentioned, and adjusted the description.

Q7: The references should be in the format requested by the journal. The references should be numbered in their order of appearance in the text.

Answer: Thanks for the suggestion. We revised the references in the format requested by the journal.

Q8: Please re-formulate the paragraph “Several studies have compared the short-term and long-term outcomes of the two procedures, but the efficacy and safety of CP in comparison to DP are still not entirely unclear [6]” to “Several studies have compared the short-term and long-term outcomes of the two procedures, but the efficacy and safety of CP in comparison to DP are still unclear [6]”.

Answer: Thanks for the suggestion. We re-formulated the paragraph.

Reviewer #2:

Q1: Factors other than the incidence of diarrhea need to be assessed when evaluating exocrine function. In this study, exocrine function was estimated from diarrhea alone. However, several important conditions regarding pancreatic exocrine deficiency are reported. Other criteria including fatty liver should be observed when assessing exocrine function.

Answer: Thanks for the suggestion. Indeed the evaluation method for exocrine function and is limited in this study. Fecal elastase test, fatty liver or equivalent tests are better choice. However, since this is an retrospective study, the fecal elastase test or equivalent tests are missing, resultly we cannot evaluate exocrine function through these more objective tests. This is one of the limitations of this study.

Q2: Evidence should be revealed when emphasizing the superiority of laparoscopic CP in retaining exocrine and endocrine function. The authors say laparoscopic surgery has several apparent advantages over conventional open techniques, such as early postoperative recovery, short hospital stay, and minimally invasive incision. It seems to be exaggerated that laparoscopic surgery suits CP procedure. It should be discussed based on robust evidence.

Answer: Thanks for the suggestion. It seems to be exaggerated that laparoscopic surgery suits CP procedure. We adjusted the description.

Reviewer #3:

Q1: Imaging (CT/MRI) findings were not included.

Answer: Thanks for the suggestion. The imaging (CT/MRI) findings were not discussed throughly, and we only described the median distance between the tumor and left-side border of the SMV according to the CT in table 1.

Q2: Relation of splenic vessels to the tumor. Q3: Status of splenic vessels ligation in CP. Q4: If splenic vessels ligated, adequacy of blood supply to distal pancreas were assessed or not, which will influence remnant gland function.Q5: Incidence pancreatic infarction following CP.

Answer: Thanks for the suggestion. But splenic vessels ligation in CP is not routinely performed in CP in our center. And in this study, no patient received splenic vessels ligation in CP group.

Q6: Objective test for exocrine insufficiency was lacking, like fecal elastase test or equivalent tests which will reflect accurate functional status.

Answer: Thanks for the suggestion. The evaluation method for exocrine function was limited in this study. Fecal elastase test or equivalent tests are better choice. However, since this is an retrospective study, the fecal elastase test or equivalent tests are missing, resultly we cannot evaluate exocrine function through these more objective tests. This is one of the limitations of this study.

Re-reviewer #1:

Q1: The authors did not properly addressed all the concerns raised by the reviewers.

Answer: I have answered the comments of reviewer in Reviewer#1.

Re-reviewer #2:

None.

Answer: Thanks for your comments.