

Dear editors,

Thank you for giving us the opportunity to revise our manuscript. We have studied their comments carefully and have made point by point revisions which we hope to meet with their approval.

Reviewer 1:

1. **Question:** Was the study only retrospective?

Response: Yes, the study is a retrospective study.

2. **Question:** The title of the manuscript needs a modification, it should include study design and sample along with keywords may be modified as 'Association of resectable pancreatic cancer with low preoperative skeletal muscle index among young and elderly patients'.

Response: In this study, we aimed to assess the impact of preoperative CT-based body composition measures on cancer prognosis in our single cohort of patients undergoing surgical resection for PDAC. The subgroup analysis showed the low preoperative SMI was more prevalent in elder patients, and associated with poor prognosis among elderly pancreatic cancer patients. This may be considered a highlight of this study, and inspired the original title. We have changed the title to make it more concise and explicit.

3. **Question:** The methodology needs to be revisited, as per description of the study it seems to be an ambidirectional study that includes a retrospective chart review along with prospective follow up... this needs to be written clearly.

Response: This study is a retrospective study. We have checked and revised the methodology to make it clearer.

4. **Question:** As per title and study design the parts of methodology, results and discussion portion needs a thorough revision.

Response: We have made the revision in the revised manuscript.

Reviewer 2:

1. **Question:** [Introduction] 1) In the introduction, the following reference article should be cited. Sato et al. *Pancreatology*. 2021 Aug;21(5):892-902.

Emori et al. *Pancreatology*. 2022 Mar;22(2):277-285. Uemura et al. *Br J Nutr*. 2021 May 28;125(10):1140-1147. Asama et al. *Pancreas*. 2022 Feb 1;51(2):148-152.

Response: The recommended references have been included in the revised manuscript.

2. **Question:** [Materials and methods] Clinical data collection 2) The term patients recruited should be written in the main text.

Response: Details of the included patients have been explicitly described in the revised manuscript.

3. **Question:** [Materials and methods] CT-based body composition assessment 3) Usually the skeletal muscle quantification in the cross-sectional CT image is used at the level of the third lumbar vertebral body (L3). Please cite the reference below. Sato et al. *Pancreatology*. 2021 Aug;21(5):892-902.

Response: The recommended references have been included in the revised manuscript.

4. **Question:** [Materials and methods] Cutoff value and classification settings 4) The authors stated that the cutoff values were selected based on the best accuracy of 1-year mortality. However, the rationale of the 1-year mortality and overall survival and recurrence-free survival is not clear. The cutoff value should be set based on the previous reports.

Response: The optimal cutoff values for low SMI/sarcopenia diagnosis

remain a matter of debate. Especially, differences in the diagnostic criteria for low SMI/sarcopenia are among races and populations (PMID: 29503056). Thus, we newly proposed the cutoff values of SMI which were based on the best accuracy of 1-year mortality. Our cutoff values could predict long-term prognosis well and are similar to those from some other studies that focus on Asian population (PMID: 26437072, 32974690), which indicates that they should be representative. Though, an independent confirmatory study would also be required before extending our findings to the general cancer population. Besides, the optimal cutoff values for low SMI/sarcopenia in patients with pancreatic cancer remain to be elucidated based on multicenter large cohorts.

5. Question: [Results] Patient characteristics according to SMI and SMD 5) In the table 1, some factors were significantly difference between low/high SMI and low/high SMD groups. If the authors would like to show SMI is truly significant factor to contribute to overall survival, these factors should be corrected by using propensity score matching (Okugawa et al. JPEN J Parenter Enteral Nutr. 2018 Nov;42(8):1322-1333.)

Response: We would like to thank the reviewer for his/her insightful suggestion. Due to the relatively small sample size of this study, especially in low SMI group (n = 38), it was difficult to conduct the propensity score matching analysis. Though, both univariate and multivariate analysis showed that a low SMI was a significant risk factor for mortality, which may be not optimal, but could partly indicate that SMI is truly significant factor to overall survival.