

Our Response to Reviewers' comments

We are grateful to the reviewers for the comments that helped us further improve the manuscript. We sincerely appreciate the reviewers' advice and comments, as well as their precious time. For detail, please refer to the responses below. Our responses to the reviewer's comments are in italics and bold, and our revisions in the manuscript are highlighted in yellow.

Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Major revision

Specific Comments to Authors: The manuscript introduced CT-assessed sarcopenia in pancreatic cancer. The following issues should be considered before publication:

1. There are different assessment tools to measure skeletal muscle. Until now, no consensus has been established on the best technique. It is not true that computed tomography (CT)- or magnetic resonance imaging-based analysis has become the gold standard.

Response: The reviewer raised a good point, and we agree with the reviewer. We changed the sentence as follows:

“A wide range of techniques such as body imaging modalities including computed tomography (CT) and magnetic resonance imaging, bioimpedance analysis, or anthropometric measures have been used to assess muscle mass; however, no gold standard diagnostic method for sarcopenia has been established yet.”

2. Skeletal muscle mass (SMI) is associated with poor prognosis. However, lack of universally accepted threshold for determination of low SMI is one of the limitations of skeletal muscle measurement using CT in clinical practice. Cancer treatment and clinical stage may have impact on SMI. It is difficult to interpretation the results and comparison between researches. This should be clearly stated in this review.

Response: Thank you for your great suggestion. We mentioned the heterogeneity of the threshold of the SMI in a new Limitations section.

“There has been heterogeneity among studies regarding the threshold for sarcopenia based on low SMI. The races of study participants, clinical stages, and treatment methods could affect SMI. Therefore, caution is needed when synthesizing or comparing each study.”

3. Please state the limitations of CT-assessed Sarcopenia in pancreatic cancer based on current studies.

Response: As the reviewer suggested, the following paragraph was added:

STUDY LIMITATIONS

“There has been heterogeneity among studies regarding the threshold for sarcopenia based on low SMI. The races of study participants, clinical stages, and treatment methods could affect SMI. Therefore, caution is needed when synthesizing or comparing each study. Another limitation of the studies based on CT-assessed sarcopenia relates to the failure to include any functional measurements or patient-reported quality of life. Although the decrease and change of skeletal muscle mass is a major concern for supportive care in pancreatic cancer patients, physical functional assessments and quality of life measures have been highlighted as meaningful outcomes for cancer cachexia research.”

Reviewer #2:

Scientific Quality: Grade D (Fair)

Language Quality: Grade C (A great deal of language polishing)

Conclusion: Major revision

Specific Comments to Authors: Thank you very much for sending and submitting this manuscript. Unfortunately, this manuscript is not well organized and does not follow a clear flow. Compared to previous studies, this manuscript has lacked novelty. And in terms of citation, this draft is very weak And many parts lack references. And in terms of writing and English language, it needs basic editing.

Response: Thank you for your comments. We revised our paper according to the reviewers' points, added additional references, and received additional language editing from Editage (<https://www.editage.com>), which the Baishideng Publishing Group strongly recommends.

Reviewer #3:

Scientific Quality: Grade C (Good)

Language Quality: Grade A (Priority publishing)

Conclusion: Minor revision

Specific Comments to Authors: The authors present a review on the role of sarcopenia in pancreatic cancer. From a radiology perspective, the authors manage to capture the big concepts of CT-based body composition assessment in a manner appropriate for a clinical audience and are only inaccurate in a few minor places that can easily be corrected.

Minor comments: INTRODUCTION, paragraph 2: "Body composition" is a definition that includes a wide variety of metrics and tissues; in addition to the ones mentioned by the authors there are quality (attenuation) and distribution on the metrics side and bone on the tissue side that make up the best researched part of body composition.

Response: Thank you for your meticulous evaluation. We added the following sentences:

“The assessment of body composition typically refers to the measurement of fat and muscle masses. Sarcopenia is a term used to describe the age-related loss of muscle mass and strength. Beyond the quantification of the muscle mass, the importance of the muscle quality assessed for fat infiltration within the muscle is also emerging. A number of parameters have been analyzed for sarcopenic obesity, such as subcutaneous adipose tissue, visceral adipose tissue, and visceral fat-to-skeletal muscle ratio.”

CT-BASED BODY COMPOSITION ANALYSIS, paragraph 2: The authors address the important topic of parameters influencing measurements. The novice reader could likely benefit from a brief introduction into the topic of threshold-based segmentation and its use in body composition analysis to understand its implications more intuitively. Further it should be added that even more than the contrast phase, the presence of absence of intravenous contrast influences skeletal muscle attenuation (see Fuchs et al.).

Response: We appreciate your positive comments. We added the recommended reference and related sentences as follows:

“The use of intravenous contrast or slice thickness can affect body composition data (Fuchs et al.). The phase of CT acquisition (e.g., arterial or portal) also affects the assessment of the skeletal muscle area because the contrast agent increases tissue attenuation. Therefore, the consistent use of certain thresholds and a particular phase of CT is important to obtain reliable results. In addition, CT acquisition parameters should be reported together with body composition data using CT.”

Additionally, in body composition research "SMI" typically refers to "SKELETAL muscle index" rather than "spinal muscle index" as it also includes muscle groups not connected to the spine. Segmenting exclusively paraspinal muscle or psoas muscle is also occasionally used but the authors should be careful to use clear terminology

Response: Thank you for your comments. The terms “spinal muscle index” has been changed to “skeletal muscle index” throughout the manuscript.

(1) Science editor:

The manuscript has been peer-reviewed, and it's ready for the first decision.

Language Quality: Grade B (Minor language polishing)

Scientific Quality: Grade C (Good)

Response: We appreciate the editor's consideration of our study as a MINI REVIEW.

2) Company editor-in-chief:

I recommend the manuscript to be published in the World Journal of Gastrointestinal Oncology.

Before final acceptance, when revising the manuscript, the author must supplement and improve the highlights of the latest cutting-edge research results, thereby further improving the content of the manuscript. To this end, authors are advised to apply a new tool, the Reference Citation Analysis (RCA). RCA is an artificial intelligence technology-based open multidisciplinary citation analysis database. In it, upon obtaining search results from the keywords entered by the author, "Impact Index Per Article" under "Ranked by" should be selected to find the latest highlight articles, which can then be used to further improve an article under preparation/peer-review/revision. Please visit our RCA database for more information at: <https://www.referencecitationanalysis.com/>.

Response: Thank you for your suggestion. According to recommendations, we used RCA as a reference database to identify the more cutting-edge research results.