REVIEWERS' COMMENTS: (Reviewer 2)

The manuscript has two aims: to verify the ability of BIVA provides useful data to evaluate sarcopenia in elderly; and to evaluate the relationships between PhA and physical body properties. Significant number of volunteering subjects have been recruited, sarcopenia diagnosed based on the EWGSOP2 guidelines and BIA performed together with physical parameter detection. Variety of statistical analysis methods are applied to the acquired data to test the hypotheses of the usability of BIVA and PhA in sarcopenia characteristics.

SPECIAL COMMENTS

Comment	Response	Revision
1. Major issue is that the line numbers are missing from the manuscript - this is quite hard for the reviewer to review and refer to certain lines. Please add the line numbers, this is crucial.	Thanks for your comment. e added the line numbers.	Before: No After: See the manuscript.
2. The abstract of the paper is in unacceptable format. First of all, please use the format, that is defined in the Author Instructions: 1) Background: 2) Methods: 3) Results: 4) Conclusion. Secondly, the abstract should be a total of about 200 words maximum. This must be reworked and reduced more than 200 words. Thirdly, there are abbreviation in the Abstract, that are not defined. In Abstract, you also need to fully write the words once, and then define the abbreviation.	Thanks for your comment. We adjusted the abstract section and defined the abbreviations.	Before: unacceptable format. After: See the Abstract.
3. The reviewer is worried about the novelty of the manuscript. A sentence from the conclusions: "The results show that BIVA can detect changes in muscle mass in individuals with sarcopenia and is a practical method for assessing sarcopenia in the field." The same conclusion is drawing also for example in this paper, published more than 10 years ago: Marini E, Buffa R, Saragat B, et al. The potential of classic and specific bioelectrical impedance vector analysis for the assessment of sarcopenia and sarcopenic obesity. *Clin Interv Aging*. 2012;7:585-591. doi:10.2147/CIA.S38488. Please state clearly the novelty in the manuscript!	Thanks for your comment. Our study is necessary because different populations and different BIA manufacturing companies can lead to variability in the study results. Currently, simulated impedance data for Korean samples are generated in multi-spectrum devices, and 50khz phase-sensitive devices generate reference values for Korean elderly people that have not yet been shown in studies. (**Ref**: Lukaski HC. Letter to the Editor: Normal Reference Plots of the Bioelectrical Impedance Vector for Healthy Korean Adults. J Korean Med Sci. 2019;34(40):e274. Published 2019 Oct 21. doi:10.3346/jkms.2019.34.e274)	Before: The results show that BIVA can detect changes in muscle mass in individuals with sarcopenia and is a practical method for assessing sarcopenia in the field. After: See the line 314-316. "This study established BIVA reference data for Korean elderly using 50khz phase-sensitive equipment, in addition to detecting changes in muscle mass in Korean elderly patients with sarcopenia, providing evidence that BIVA can be used as a field assessment method for Korean elderly with sarcopenia."

4. Sentence in the manuscript: "Adhesive-gel electrodes were placed at defined anatomical sites on the anterior of the dorsal surfaces of the right hand, wrist, ankle, and foot." Reviewer comment: please define these defined anatomical sites too. Where and how were these adhesive-gel electrodes attached? I suggest to add an illustration as as the written section in page 4 is quite hard to follow?	Thanks for your comment. For details we have described in a previously published study, please refer to the article： Jiang F, Tang S, Eom J-J, Song K-H, Kim H, Chung S, Kim C-H. Accuracy of Estimated Bioimpedance Parameters with Octapolar Segmental Bioimpedance Analysis. *Sensors*. 2022; 22(7):2681. https://doi.org/10.3390/s22072681	
5. Sentence: "Males were significantly taller and heavier than females ($p<0.001$), and females had significantly higher R, R/H, and Xc/H than males ($p<0.001$)" in page 4 and sentence "Males had significantly greater height, weight, ASM, ASMI, muscle quality, and PhA than females ($p<0.001$), and females had significantly higher R than males ($p<0.001$)." in page 7 say the same thing. Is this repetition necessary?	Thanks for your comment. We removed the duplicate descriptions.	Before: The duplicate description. After: See the results section.
6. Figures 1-3 are of very low quality, the texts and numbers are sporadically unclear. Please provide figures of acceptable quality.	Thanks for your comment. We replaced the image with a clearer one.	Before: Figures 1-3 are of very low quality. After: See the Figures 1-3.
7. In several places in the manuscript, the terms "sarcopenia group" and "non-sarcopenia" groups are stated. However, no definition or description of the designation into each group is described in the manuscript. First sentence about non-sarcopenia group appears in page 5 just after Table 1 without any pre-knowledge. Please define.	Thanks for your comment. We have added this section.	Before: No After: See the line 133-134
8. Table 2 shows, that the total number of female sarcopenia patients is 2? Is it really so? Based on that, no any reliable statistical analysis can be performed. Please explain.	Thanks for your comment. Since the sample size of patients with sarcopenia was less than 10, we used a non-parametric test.	
9. Table 1 and 4 are duplicating each other in several lines. Even more, some numbers are different, unless, should be duplicates. Why is this duplication necessary, explanation of revision required.	Thanks for your comment. We combined Tables 1 and 4.	Before: Table 1 and 4. After: See the Table 1.
10. Table 2 and 5 are duplicating each other. What is the reason to duplicate the results in the single manuscript?	Thanks for your comment. We removed the Table 5. See the manuscript.	Before: Table 2 and 5. After: Removed the Table5.
11. Figure 5 is not referenced in the text. All the figures/tables must be referenced in the text.	Thanks for your comment. We cited Figure 5 in the text.	Before: No After: See the line 248.
12. Sentence in the beginning of Discussion section: "This study used the AWGS criteria to diagnose sarcopenia in Korean elderly individuals, established BIVA reference values in 122 healthy Korean elderly people aged 69-91 years, and determined whether BIVA can be used to diagnose sarcopenia in individuals." Where does this number 122 elderly people comes from? Previously you have stated the participation of 134 elderly volunteers...	Because 12 elderly patients with sarcopenia were excluded, we established reference values for BIVA using 122 healthy Korean elderly people aged 69-91 years.	