

Review of: "[Review] Sarcopenia in Coronavirus Disease (COVID-19): All to Know from Basic to Nutritional Interventions from Hospital to Home"

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Potential competing interests: No potential competing interests to declare.

In this narrative review the authors address the role of sarcopenia in COVID-19. They aim to comprehensively summarize the mechanistic, clinical, and prognostic implications of the concurrence of both diseases. Although the pandemic has been on a downward trend and global crisis has eased, this topic is of great relevance as a comeback cannot be ruled out and there are many lessons to be learned from the past three years.

I think the article could be of merit for readers but there are several points that the authors should address before.

Major points:

- 1. Most statements and conclusions of the authors seem to be based rather on personal opinions than on actual evidence. The great majority of cited studies is not directly related to COVID-19 but other diseases or conditions. Referring to studies in COVID-19 patients would provide more convincing support to some of the authors' statements. Research on COVID-19 is still rapidly increasing and there are several recent studies that investigate nutritional status and muscle wasting in patients with COVID-19. I would suggest that the authors perform a systematic literature review to identify recent studies that are relevant to this article. In fact, it would greatly improve the value of their work if the authors decided to make it a systematic review rather than a narrative one.
- 2. The authors point of the importance of nutrition therapy to prevent impaired nutritional status and development of sarcopenia. I suggest that the authors include some of the recent recommendations for nutritional therapy in patients with COVID-19, e.g., those by the European Society for Clinical Nutrition and Metabolism (PMID: 32305181).
- 3. Strengths and limitations of their work are only briefly discussed. I think there are several limitations that should be acknowledged, first and foremost, the narrative character of the review and the reference to conditions other than COVID-19.
- 4. It is quite difficult to comprehend the text language-wise. There are many typographical and grammatical errors, which make language, unfortunately, a major issue. I suggest substantial language editing to improve quality of the article.

Minor points:

1. The authors state that "sarcopenia mechanism is simple". This is rather a subjective position and untenable from a biochemical perspective as it is acknowledged by most experts that pathophysiology of sarcopenia is complex (PMID:



30312372, PMID: 33130247). This complexity makes it challenging to develop interventions or therapy for the treatment of sarcopenia. The author should revise this passage or provide additional explanation for their opinion.

- 2. There is no legend for Table 2. The abbreviations used in the table should be explained to make it self-containing.
- 3. The figures seem to be in wrong order. Figure 1 is presented at the very end although the authors refer to this figure in the beginning of the text.