

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 87184

Title: Association of low muscle strength with metabolic dysfunction-associated fatty liver disease: A nationwide study

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05231286

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Associate Chief Physician

Reviewer's Country/Territory: China

Author's Country/Territory: South Korea

Manuscript submission date: 2023-08-01

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-08-10 11:04

Reviewer performed review: 2023-08-18 10:52

Review time: 7 Days and 23 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input checked="" type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The authors conducted a nationwide study to investigate the association between muscle strength and MAFLD. The work is good and important. However, similar reports have been published. My concerns are as follows: 1. Please update the references. The introduction and discussion sections were not well organized, many literatures (PMIDs: 37024207, 36959316, 36673611, 36520009, 36499438, 36157867, 36157861, 36017777, 35887915, 35692671, 35343663, 35162699, etc) were not cited. 2. The cut-off value or criteria of muscle strength Q1 to Q4 should be described in details. 3. The pairwise comparison should be considered for the prevalence of MAFLD according to the muscle strength in figure 1A. The prevalence of MAFLD of Q2, Q3 and Q4 in the subgroup analysis based on gender and age should be described and compared separately in Figure 1B and 1C. 4. Since the baseline features were uneven distributed among the four groups in table 1, the variables should be entered in the preliminary logistic analysis. And the results should be presented. 5. ROC and Decision Curve Analysis (DCA) methods should be used for the presentation of the results.

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Title: Association of low muscle strength with metabolic dysfunction-associated fatty liver disease: A nationwide study

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03198793

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Chief Physician, Dean, Professor

Reviewer's Country/Territory: China

Author's Country/Territory: South Korea

Manuscript submission date: 2023-08-01

Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-09-17 07:53

Reviewer performed review: 2023-09-26 16:48

Review time: 9 Days and 8 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

This study investigated the association between muscle strength and MAFLD in the general population, who participated in the Korea National Health and Nutrition Examination Survey between 2015 and 2018. They found that the lower muscle strength was associated with an increased risk of MAFLD and liver fibrosis in patients with MAFLD. It has some reference value to the clinical practice. However, there are two queries that need to be answered. 1. The author did not describe whether the participants took any medications, such as antihypertensive drugs, anti-hyperlipidemic drug, hypoglycemic drugs, or other drugs that affect liver steatosis. As is well known, these drugs will affect the data used and the results obtained in the analysis of this study. 2. Model 2 = adjusted for age, sex, income, education, smoking status, and physical activity I wonder how you made the adjustments.

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Title: Association of low muscle strength with metabolic dysfunction-associated fatty liver disease: A nationwide study

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05242768

Position: Editorial Board

Academic degree: PhD

Professional title: Chief Physician, Director, Professor

Reviewer's Country/Territory: China

Author's Country/Territory: South Korea

Manuscript submission date: 2023-08-01

Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-09-13 07:39

Reviewer performed review: 2023-09-28 07:13

Review time: 14 Days and 23 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Peer-reviewer statements	Peer-Review: [<input checked="" type="checkbox"/>] Anonymous [<input type="checkbox"/>] Onymous
	Conflicts-of-Interest: [<input type="checkbox"/>] Yes [<input checked="" type="checkbox"/>] No

SPECIFIC COMMENTS TO AUTHORS

The author collected 17,349 eligible individuals who participated in KNHANES between 2015 and 2018. By analyzing the relationship between different muscle strength quartile groups and the prevalence of MAFLD, they found lower muscle strength was associated with an increased risk of MAFLD and liver fibrosis in patients with MAFLD. Majors: 1, This nationwide cross-sectional study analyzed 17349 general population who participated in the Korea National Health and Nutrition Examination Survey and measured handgrip strength between 2015 and 2018. The data is slightly old. It also does not specify whether the database is authorized. 2, The inclusion criteria for research subjects are not clearly explained. 3, As in Materials and Methods "Assessment of muscle strength" mentions that muscle strength is assessed using relative grip strength. However, the relative grip strength of different sexes varies greatly, which will change the data quartile grouping (e. g., the muscle strength of a male is Q1 in men, and Q2 in the total population). It is suggested that different sexes be analyzed and discussed separately. The Q1-Q4 grouping definition shall be described in detail. Minors 1, What is the basis for selecting the adjustment variables in Model 2 and Model 3? 2, The description of adjusted variables in Table 3 should be all these variables after removing stratified variables. At Page 9, line14, the diagnostic criteria of the disease should be marked with references. 3, In Figure 1A, it was not indicated whether the differences among the four groups were statistically significant (***, $P < 0.001$). In Figure 1B and 1C, the meaning of "*" should be indicated in the figure legend, $P < 0.05$. 4, Please check the moderate-intensity and high-intensity activity time on Page 8. 5, The reference format should be consistent.