PEER-REVIEW REPORT

Name of journal: *World Journal of Orthopedics*

Manuscript NO: 86756

Title: Relationships among Body Weight, Lipids and Bone Mass in Elderly Individuals with Fractures: A Case-Control Study

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06139840

Position: Peer Reviewer

Academic degree: PhD

Professional title: Professor

Reviewer's Country/Territory: Iraq

Author's Country/Territory: China

Manuscript submission date: 2023-07-06

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-07-10 16:26

Reviewer performed review: 2023-07-20 15:09

Review time: 9 Days and 22 Hours

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Novelty of this manuscript	[ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No novelty
Creativity or innovation of this manuscript	[ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No creativity or innovation

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

SPECIFIC COMMENTS TO AUTHORS

Thank you for asking my opinion about the manuscript entitled "Low weight related to low bone mass in elderly patients with fractures: a case-control study". I believe that this manuscript should be major revision: Q1. It is very important to change and modify the title. the title is not appropriate. Q2. Are the objectives and the rationale of the study clearly stated? Q3. In the abstract, the research gap was not clearly stated. In addition, the authors need to rewrite the study objectives to be more academic writing Q4. In the introduction, include the study's significance and novelty. What makes the study different from the rest and what does it add to the current knowledge?. Q5. In the introduction, the authors should have explained the purpose of this study and the existing gaps in this field and explained why this study was conducted. Q6. Are the methods clear and replicable? Do all the results presented to match the methods described? Q7. If relevant are the results novel? Does the study provide an advance in the field? Is the data plausible? Q8. References are relevant, correct, and not recent. The number of references should be increased. please add some references. since this is a scientific review, all the sentences need to be supported with references.

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This study is very beautiful. I liked the sequence and enjoyed reading. Please add more references on similar studies. Q9. There are a lot of grammatical errors. This must be taken care of and addressed. Q10. What are the limitations of the study? A description of limitations is missing at the end of the discussion section.

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	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The presented retrospective study added the knowledge about relationship between body weight and bone mineral density. The study contains some limitations that should be added at the end of the manuscript. In the title of the article, it is worth indicating that the study was carried out in China in connection with the population characteristics of the development of osteoporosis in residents of different countries of the world. The conclusions are consistent with the goal. The limitations include the following: 1. Collection of blood samples immediately after the fracture. As described in the methods: "Serum samples were collected immediately after the patients were admitted" at the Trauma Center with hip, vertebral, distal radius and proximal humerus fractures. Can the authors explain whether such a serious injury as a hip fracture affected the studied parameters? Is it possible to compare the biochemical parameters of patients with distal radius and hip fractures and combine them into the same group? 2. Assessment of low/normal bone mass from proximal femur based on bone mineral density alone. Probably, if you did not also use the second part of the skeleton for assessing bone mass, then it is worth indicating this in the limitations. Furthermore, I have the following

questions to the authors: 1. According to the average BMI given in the tables, all the patients in the study appear to be of normal weight. It is probably worth mentioning this in the description of the results and in the limitations of the study. If this is not the case, could you supplement the information on the distribution of patients with normal weight/obesity in groups in the results . 2. Could the authors add the exact value of the BMD scores to their statistical analysis, since the T-score is itself a standard deviation from the normal BMD reference value. Moreover, you are writing "However, the relationship among BMI, BMD, and lipid profiles remains unclear". 3. Page 7. Add appropriate references after the sentence "Previous studies have reported that many factors contribute to osteoporosis."

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Peer-reviewer	Peer-Review: [Y] Anonymous [ ] Onymous

statements	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Q8. References are relevant, correct, and not recent. The number of references should be increased. please add some references. since this is a scientific review, all the sentences need to be supported with references. • If your manuscript is related to mine, you can cite it (ORCID: https://orcid.org/0000-0002-5107-5550).