

LETTER TO THE EDITOR

Open Access



In reply to the letter to the editor regarding “The Relationship Between Serum Vitamin D and Fracture Risk in the Elderly: A Meta-Analysis”

Ning Wang^{1†}, Jindou Ji^{1†}, Shengwen Yu¹, Jinlei Chang¹, Yungang Chen² and Bo Yu^{2*}

Dear Editor,

We wish to thank all of the reviewers for their thought-provoking and insightful comments about our recent meta-analysis published in the journal [1]. Our answers to the questions raised are as follows:

First, at present, there is no conclusion about the database to be searched. The two databases we searched (PubMed and Embase) can find most of the literature. Many meta-analysis also searched only two or three databases [2–12].

Second, registration is not a necessary condition for meta-analysis. On the contrary, most meta-analyses are not registered in PROSPERO. Compared with the significance of the research itself, whether it is registered in the Cochrane Library or PROSPERO is not a matter of special concern. We strictly followed the steps of PRISMA during the research process. According to the relevant requirements of JOSR, the author is required to provide registration information about the system review, including the registration number (if any), and we have clearly indicated our registration status in our Abstract.

Third, participants from Swanon et al. and Cauley et al. are indeed from the same research cohort, but the number of people included in each study is different. More importantly, adjustment factors for the final results are quite different, and the final results remain unchanged even when we exclude one of the studies.

Fourth, compared with previous meta-analyses conducted on this topic, our research sets standards based on bone turnover rate and stricter age limits, which was why we conducted a subgroup analysis of gender. We did feel it was necessary to conduct analysis on BMI as a previous meta-analysis already studied BMI and showed that low BMI under any conditions is one of the risk factors for elderly fractures [13, 14].

Finally, thanks again for the comments you made on this article, and we hope that our reply helps answer your questions.

Authors' contributions

NW and JDJ wrote this manuscript. YGC and JLC reviewed the included literature in the article, and SWY checked and evaluated the criteria for included literature. BY revised the manuscript. All authors read and approved the final manuscript.

Funding

None

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Ethics approval and consent to participate

None

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Author details

¹Shandong University of Traditional Chinese Medicine, Jinan 250014, China.

²Department of Orthopaedics, Affiliated Hospital of Shandong University of Traditional Chinese Medicine, Jinan 250014, China.

* Correspondence: YBshengzhongyi@126.com

[†]Ning Wang and Jindou Ji contributed equally to this work.

²Department of Orthopaedics, Affiliated Hospital of Shandong University of Traditional Chinese Medicine, Jinan 250014, China

Full list of author information is available at the end of the article



Received: 7 July 2020 Accepted: 27 July 2020

Published online: 14 August 2020

References

1. Wang N, Chen Y, Ji J, Chang J, Yu S, Yu B. The relationship between serum vitamin D and fracture risk in the elderly: a meta-analysis. *J Orthop Surg Res*. 2020;15(1):81. Published 2020 Feb 27. <https://doi.org/10.1186/s13018-020-01603-y>.
2. Olesen TB, Sand FL, Rasmussen CL, et al. Prevalence of human papillomavirus DNA and p16INK4a in penile cancer and penile intraepithelial neoplasia: a systematic review and meta-analysis. *Lancet Oncol*. 2019;20(1):145–58. [https://doi.org/10.1016/S1470-2045\(18\)30682-X](https://doi.org/10.1016/S1470-2045(18)30682-X).
3. Gay F, Jackson G, Rosiñol L, et al. Maintenance treatment and survival in patients with myeloma: a systematic review and network meta-analysis. *JAMA Oncol*. 2018;4(10):1389–97. <https://doi.org/10.1001/jamaoncol.2018.2961>.
4. Dhakal B, Szabo A, Chhabra S, et al. Autologous transplantation for newly diagnosed multiple myeloma in the era of novel agent induction: a systematic review and meta-analysis. *JAMA Oncol*. 2018;4(3):343–50. <https://doi.org/10.1001/jamaoncol.2017.4600>.
5. Boulos MI, Jairam T, Kendzerska T, Im J, Mekhael A, Murray BJ. Normal polysomnography parameters in healthy adults: a systematic review and meta-analysis. *Lancet Respir Med*. 2019;7(6):533–43. [https://doi.org/10.1016/S2213-2600\(19\)30057-8](https://doi.org/10.1016/S2213-2600(19)30057-8).
6. van Geffen WH, Slebos DJ, Herth FJ, Kemp SV, Weder W, Shah PL. Surgical and endoscopic interventions that reduce lung volume for emphysema: a systemic review and meta-analysis. *Lancet Respir Med*. 2019;7(4):313–24. [https://doi.org/10.1016/S2213-2600\(18\)30431-4](https://doi.org/10.1016/S2213-2600(18)30431-4).
7. Bolland MJ, Grey A, Avenell A. Effects of vitamin D supplementation on musculoskeletal health: a systematic review, meta-analysis, and trial sequential analysis. *Lancet Diabetes Endocrinol*. 2018;6(11):847–58. [https://doi.org/10.1016/S2213-8587\(18\)30265-1](https://doi.org/10.1016/S2213-8587(18)30265-1).
8. Bethel MA, Patel RA, Merrill P, et al. Cardiovascular outcomes with glucagon-like peptide-1 receptor agonists in patients with type 2 diabetes: a meta-analysis. *Lancet Diabetes Endocrinol*. 2018;6(2):105–13. [https://doi.org/10.1016/S2213-8587\(17\)30412-6](https://doi.org/10.1016/S2213-8587(17)30412-6).
9. Al-Shahi Salman R, Frantziás J, Lee RJ, et al. Absolute risk and predictors of the growth of acute spontaneous intracerebral haemorrhage: a systematic review and meta-analysis of individual patient data [published correction appears in *Lancet Neurol*. 2018 Sep 19]. *Lancet Neurol*. 2018;17(10):885–94. [https://doi.org/10.1016/S1474-4422\(18\)30253-9](https://doi.org/10.1016/S1474-4422(18)30253-9).
10. Román LS, Menon BK, Blasco J, et al. Imaging features and safety and efficacy of endovascular stroke treatment: a meta-analysis of individual patient-level data [published correction appears in *Lancet Neurol*. 2018 Dec; 17(12):e2–e3]. *Lancet Neurol*. 2018;17(10):895–904. [https://doi.org/10.1016/S1474-4422\(18\)30242-4](https://doi.org/10.1016/S1474-4422(18)30242-4).
11. Chan XHS, Win YN, Mawer LJ, Tan JY, Brugada J, White NJ. Risk of sudden unexplained death after use of dihydroartemisinin-piperaquine for malaria: a systematic review and Bayesian meta-analysis [published correction appears in *Lancet Infect Dis*. 2018 Jun 26]. *Lancet Infect Dis*. 2018;18(8):913–23. [https://doi.org/10.1016/S1473-3099\(18\)30297-4](https://doi.org/10.1016/S1473-3099(18)30297-4).
12. Clarke MA, Long BJ, Del Mar MA, Arbyn M, Bakkum-Gamez JN, Wentzensen N. Association of endometrial cancer risk with postmenopausal bleeding in women: a systematic review and meta-analysis. *JAMA Intern Med*. 2018; 178(9):1210–22. <https://doi.org/10.1001/jamainternmed.2018.2820>.
13. De Laet C, Kanis JA, Odén A, et al. Body mass index as a predictor of fracture risk: a meta-analysis. *Osteoporos Int*. 2005;16(11):1330–8. <https://doi.org/10.1007/s00198-005-1863-y>.
14. Feng Y, Cheng G, Wang H, Chen B. The associations between serum 25-hydroxyvitamin D level and the risk of total fracture and hip fracture. *Osteoporos Int*. 2017;28(5):1641–52. <https://doi.org/10.1007/s00198-017-3955-x>.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Ready to submit your research? Choose BMC and benefit from:

- fast, convenient online submission
- thorough peer review by experienced researchers in your field
- rapid publication on acceptance
- support for research data, including large and complex data types
- gold Open Access which fosters wider collaboration and increased citations
- maximum visibility for your research: over 100M website views per year

At BMC, research is always in progress.

Learn more biomedcentral.com/submissions

