Reviewer’s report

Title: Low bone mineral density is strongly associated with low-energy distal radius fractures in middle-aged and elderly men. A case-control study

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Reviewer: Gerolamo Bianchi

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The Authors aimed to assess potential risk factors for distal radius fractures in males. The identified prospectively, over a two years period, men with low-energy distal radius fractures and matched them with randomly selected controls. Actually, all risk factors known to be associated with osteoporotic fractures were retrieved and included in the analyses.

Using conditional logistic regression models the Authors found that, among potential risk factors tested, only BMD was a risk factor for distal radius fractures.

The article is well written, concise and comprehensive. The study design is original, the Methods are adequate for the objectives of the study, particularly the statistical analyses, the Results are interesting and are of clinical value, and the Discussion is appropriate for the Results.

The main limitations of the study are correctly highlighted. While, the huge number of variables considered and the statistical approach are the major strong points of the study.

I have only two minor comments:
- In the Tables the term “Bisphosphonate” is misspelled.
- I suggest to highlight in the Table 2 that ORs and 95% CI were calculated using conditional regression models. This is a strong point of the study, since frequently in published papers with similar design, Authors forget to use the correct statistical analyses for individually matched case-control trial, namely conditional logistic regression.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests