Reviewer’s report

Title: Dairy product consumption and risk of hip fracture: A systematic review and meta-analysis

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Reviewer: Dominika Glabska

Reviewer's report:

The manuscript entitled "Dairy product consumption and risk of hip fracture: A systematic review and meta-analysis" presents an interesting meta-analysis, but some minor corrections are needed.

Abstract: Taking into account the fact, that the results are inconsistent, more information from the results section should be included, in order to indicate the fact, that not all results let to conclude about association between dairy products intake and the hip fracture risk.

Background:

Lines 48-50 - rather global data, are needed, than the Chinese ones

Lines 50-51 - the reference is needed

Lines 57-59 - many information are not true - e.g. in meat products (especially offals) there is more phosphorus, than in dairy products, in vegetables there is more potassium than in dairy products, etc.

Lines 61-62 - dairy products are not the significant source of indicated nutrients, but rather other products are

Lines 64-67 - too general - Authors should rather indicate, that mentioned studies were conducted in various groups - characterized by various age, gender, from populations characterized by very low dairy products intake, as well as by high dairy products intake

Lines 72-73 - cream is in general characterized by lower sodium content, than the mentioned dairy products
Methods:

Line 82 - not only "hip fractures" keyword, but also "hip fracture" was included - it should be indicated

Lines 85-86 - the specific articles should be indicated

Line 99 - if the most recent study was not the most comprehensive, which one was chosen? It must be defined

Additional file 2 - This file is very important, especially taking into account the various quality of analysed studies (for case-control studies differing from 4 to 8), so it should be incorporated into main body of the article, to enable readers getting familiar with the data

Results:

Figure 1 - "no relevant outcomes (n=11)" should be defined - why they were not excluded upon reading the title and/ or abstract?

Figure 1 - it is referred twice (Methods section, Results section) - there is no need for referring it second time in the Results section, while it was once referred in the Methods section and the description (lines 157-162) should be also removed

Additional file 3 - Taking into account, that 2 meta-analysis of the described issue already exist, indicating the included studies is very important. It should be included into the main body of the article in order to indicate readers, which studies were included into meta-analysis or not, and why. It may be e.g. incorporated into Figure 1. The data presented in Additional file 3 are very important, to present the readers included studies, but while it is an additional material, some readers will not get familiar with it. Moreover, due to different reference numbers in additional material than in the main body of the article, it may be hard to follow.

Discussion:

Lines 244-251 - the repeated results should be removed

Lines 260-261 - not all the indicated nutrients are important for bone health - remove or explain
Lines 265-266 - in what countries are dairy products fortified? Indicate it

Lines 284-287 - due to the fact, that galactosemia is very rare condition, the indicated sentences are not related. The probability, that in analysed groups were individuals with galactosemia is very low.

In the Discussion section, Authors should indicate results of mentioned meta-analysis of association between milk intake and hip fracture.

Limitations - among indicated limitations, also those associated with meta-analysis conducting (e.g. studies qualification process) must be indicated.

Lines 323-325 - in the case of BMI the units must be indicated

Availability of data and material: what does it mean "reasonable request"? Define it or not use the term "reasonable".

Author contributions: In comparison with the data in the manuscript (Methods section), it is inconsistent (did JH and SB participate in screening?) - It must be verified and corrected

Acknowledgements: English editing service should not be indicated, if the correction was paid

Editing: Minor corrections are needed - e.g. it should be "significantly associated" instead of "statistically associated". Authors misuse personal pronouns: "we observed", "we performed".

Moreover, what do Authors mean by "constituent"? Nutrient? The "nutrient" word is better in nutritional studies.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
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