Reviewer’s report

Title: Statin use and the risk of ovarian and endometrial cancers: A meta-analysis

Version: 0 Date: 09 Apr 2019

Reviewer: Ayelet Shai

Reviewer's report:

This literature review studies the association between statin use and endometrial and ovarian cancer. It includes studies with over 2 million women. Several issues need to be addressed:

1. Methods - it is unclear how many authors reviewed abstracts for inclusion. It is unclear whether studies looked at the incidence of epithelial OC only or other types as well and if borderline malignancies were included. There is no definition for "endocrine related malignancies". It would be better to simply address Ovarian and Endometrial cancer.

2. Studies included - the study by Rennert et al looked at bisphosphonate use and risk of OC and EC. Moreover, the population in this study is identical to the population of the study by Lavie et al. The study by Kabat et al looked at serum lipids and risk of cancer.

3. Studies done in Asia - no reference is given to these studies, and it appears that the 2 studies from Israel and 1 from China are those 3 studies. Israeli population is more similar to European population than Chinese population, and moreover one of the studies from Israel should be omitted from the analysis.

4. Tables - percentage of cancer cases should be noted in table 1

5. Why was 2013 chosen as a "cutoff"?

6. Discussion - the authors do not discuss quality of studies and differences noted in percentage of cancer cases between different studies. Discussion regarding RCT's is unclear. Page 9 line 44 - what do the authors mean ? did they look at other cancer types beside EC and OC ? Why is longer statin use not associated with reduced risk ? The authors do not discuss this puzzling finding.

7. English - need extensive language editing.

8. It is often unclear if the authors refer to cancer patients of to the population of women studied.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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