Reviewer's report

Title: Some but not all estrogen-like molecules have both bone and cartilage protective effects - suggestion of uncoupling of bone and cartilage effects

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Reviewer: Willem F Lems

Reviewer's report:

Major points:
- I am unhappy with the broader view in the discussion and particulary in the title: the title must focus on the results of tibolone on bone and cartilage degradation, and not "some but not all estrogen like molecules have both bone and cartilage protective effects: suggestion of uncoupling of bone and cartilage effects: this title can only be used when several estrogen-like molecules are tested!

- in the paper, the authors give the impression that the use of estrogen like molecules are associated with low bone and cartilage breakdown: however, the data on cartilage breakdown are not overwhelming, depending on a small number of intervention studies and further on case-control studies. this should probably be mentioned in the discussion.

Minor points:
- first sentence abstract: postmenopausal osteoporosis is associated with increased bone resorption and increased cartilage degradation: increased cartilage degradation is characteristic for osteoporosis?????

- no effect on cartilage degradation: when looking at figure 2, I have the impression that CTX2 is elevated (not significant): suppose a larger group of patients was tested, can it be imagined that the changes in CTX2 were significant? the authors should probably mention the trend to increase in their results section, and discuss it in their discussion.

- introduction: sentence 2: OA is a progressive degeneration of articular cartilage and joint space narrowing: but also by osteophytes, an omission!

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests