Reviewer’s report

Title: Nigella Sativa improves osteoporosis in ovariectomized rats

Version: 1 Date: 11 September 2013

Reviewer: Ahmad Nazrun Shuid

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Comments (All minor essential revisions)

Title: “Improves” is not specific and confusing: Suggest to change to better title eg. “Nigella Sativa Reverses Osteoporosis…..” or ….. arrests osteoporosis changes ….

Abstract
Line 4: About 33% of women over 50 years old will…
Line 7: osteoporosis produced induced by ovariectomy in rats.
Line16: ….changes were improved by NS supplementation in OVX-NS group.
Please be more specific by stating the effects on the parameters eg deceased or increased rather than by just stating “improved”
Same comment here: Conclusion: Nigella sativa improves….

Methods
Is there a certificate of analysis (COA) for the NS?
It is better to send the NS for photochemical analysis to determine its composition.
The authors should check for uterine atrophy in ovariectomised rats to confirm estrogen deficiency and success of ovariectomy procedure.
There are many bone formation and resorption markers. Please mention why ALP and NTx were chosen in this study.
Histological examination of the bone was sufficient and have shown some significant results. However a bone histomorphometric analysis would be more comprehensive.
Please mention who analysed the bone morphology parameters. It is better if it was analysed by two blinded and independent observers of whom one was a histopathologist.

…….approved by FMASU, REC, Cairo, Egypt… : please write the full term
….DiaSys Diagnostic Systems GmbH (?country )
Ostex International, Inc (? Country)

Results
NS supplementation in OVXNS group restored the Ca+2 levels to be insignificantly different levels compared to the from control SHAM rats. These levels were normalized by NS supplementation in OVX-NS group to be insignificantly different from level compared to SHAM group and significantly lower than OVX group - be consistent, please use the when stating the groups.

Figures
Spelling mistakes in the figure legends.
The figure labels in the photos were not clear and were absent in some of the photos.

Discussion
Recheck your grammar, please use past tense.
The authors suggested several proposed mechanisms of how NS may protect bone from estrogen deficient osteoporosis. Among them were by reducing oxidative stress, reducing inflammation and cytokines and increasing calcium levels. However, the manuscript would be more complete if the authors could do simple ELISA tests to check the cytokine levels to prove the hypothesis.

Moreover, Levels of lipid peroxides in the liver homogenates as well as iNOS protein.....

... responsible for their antiosteoporotic effects, that is, antioxidative and antiinflammatory properties [6]

Overall this a novel study on the bone protective effects of NS in postmenopausal osteoporosis rat model. The results were convincing and significant. However, the manuscript requires grammar checking.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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'