Reviewer’s report

Title: BIOMECHANICAL EFFECTS OF METASTASIS IN THE OSTEOPOROTIC LUMBAR SPINE

Version: 0 Date: 04 Jul 2017

Reviewer: Rosanna Wustrack

Reviewer’s report:

I would have liked to have seen additional scenarios using an osteopenic model.

I would like to see this repeated in the thoracic spine (authors addressed in discussion).

Can you find information of HRQL outcomes in individuals who sustain VCF 2/2 metastatic disease, that would make this study more compelling.

Additionally how can this information be translated to clinical practice. It seems intuitive that a person with osteoporosis and metastatic disease has an increased risk for fracture, so how is this better than intuition? How can we prevent this? Are there any clinical recommendations the authors can make?

Can this be taken out to actual fracture, ie, at a certain load this model predict fracture X% of the time, therefore we can tell patients to avoid certain loads/activities?

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

Yes

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:

Needs some language corrections before being published

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