Reviewer's report

Title: Validation of quantitative magnetic resonance imaging-based apparent bone volume fraction in peri-articular tibial bone of cadaveric knees

Version: 3 Date: 6 April 2014

Reviewer: Ko Chiba

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Major Compulsory Revisions

(1) Thresholding
In Supplementary Figure 2, the bone image is obviously underestimated. Is this methodology reliable?

(2) ROI:
ROIs of MRI and mCT seem to be different in size and location.

Size:
MRI: ROI: 15 * 3.75 * 20 mm
mCT: Specimen: 14 * 6 * 20 mm (cut from just the center of the medial plateau.)
mCT: ROI: 13.729 * 3.939 * 17 mm

Location:
In figure 1, ROI in MR image does not located in the center of the medial plateau.

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: 
no competing interests