Reviewer’s report

Title: Temperature Influence on DXA measurements: Bone Mineral Density acquisition in frozen and thawed human Femora

Version: 3 Date: 18 December 2008

Reviewer: Sami KOLTA

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The authors responded to all the questions, However:

- The answer to questions 11 and 12 are not convincing because, in the Prodigy device (as all GE lunar DXA devices), the manufacturer recommends to use the automatic search for the positioning of the neck area (which is positionned in the narrowest part AND the region with the lowest BMD in the femoral neck). That is why manual positioning is not advised. Another important point is the width of the neck region which should not be adjusted because the BMD of the neck is not homogenous and it increases as we go proximally. That is also what is recommended in vivo and with all the respect to experience of your centre, this is not at all a common daily practice (at least shouldn't be !). However, this shouldn't affect the results of your study if you confirm that the same size and the same position of the neck region was chosen for each femur. In that case, please add a sentence in the paper explaining that although sometimes you were obliged to modify the size of the neck region, the same size was used for all the scans of a specific femur.

Please add also a sentence stating what you said in answer n° 12 : "The software we used to calculate the BMD was not always able to identify the femoral neck and head region exactly. This is why we readjusted these regions to allow exact calculation."

Level of interest: An article whose findings are important to those with closely related research interests

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.