Reviewer's report

Title: Osteoporosis, vertebral fractures and metabolic syndrome in postmenopausal women.

Version: 2 Date: 12 August 2014

Reviewer: Gherardo Mazziotti

Reviewer's report:

In this cross-sectional study, El Maghraoui et al. investigated the prevalence of radiological vertebral fractures in post-menopausal women with metabolic syndrome. The paper is potentially interesting, but some concerns derive from reading the manuscript.

1) Notwithstanding the higher BMD, women with metabolic syndrome had comparable prevalence of vertebral fractures to women without metabolic syndrome. It may be interesting to investigate the prevalence of vertebral fractures in women with and without metabolic syndrome stratified for BMD (i.e., normal, osteopenia, osteoporosis).

2) Introduction: The definition of metabolic syndrome should be moved in the Methods section.

3) The results in Table #5 seem to be not consistent with the main aim of this study focused on vertebral fractures. As a matter of fact, several other studies already investigated the association between metabolic syndrome and bone mineral density.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.