Reviewer's report

Title: Procollagen type III N-terminal peptide (P3NP) and lean mass: a cross-sectional study

Version: 1 Date: 9 December 2011

Reviewer: Kiyoshi Sanada

Reviewer's report:

The purpose of this study was to determine the association between plasma P3NP and lean mass and strength in men and women. Main results showed that higher P3NP was associated with lower total and appendicular lean mass in postmenopausal women, but not premenopausal women and men. These results are essentially interesting. However I have a few comments.

1. The author stated in the Methods that cardiac muscle mass used for covariates. What did you use for the actually value? LVEDD? LVWT? SV? Or? Please express the actually value and calculating formula in the Methods section. Also why did you use this value for covariates? It is need to more explanation in the Methods or other section.

2. In the New Mexico Elder Health Survey, Baumgartner et al (1998) showed that reference values for sarcopenia in each sex were defined as 2 SD below the sex-specific means of the SMI [skeletal muscle index, SMI; appendicular muscle mass /height2, kg•m-2] in young adults. The reference values for sarcopenia were 7.26 kg•m-2 in men and 5.45 kg•m-2 in women. This value is available to evaluate the association between plasma P3NP and sarcopenia.

3. I think that the data of appendicular and total lean mass in premenopausal women and men do not need in the figure 2 if these data were stated in the Results. Moreover the R2 of quadratic regression may be higher than linear regression between P3NP and appendicular or total lean mass. Please add the figure of quadratic regression in the figure 2.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.