Reviewer’s report

Title: Beneficial association of serum ghrelin and peptide YY with bone mineral density in the Newfoundlander population

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Reviewer: STEFANO GONNELLI

Reviewer’s report:

The manuscript “Beneficial association of serum ghrelin and peptide YY with bone mineral density in the Newfoundlander population” by Amini P et al aimed to evaluate the relationships of serum ghrelin and peptide YY with bone mineral density in a large population-based cohort. The conclusion was that serum ghrelin was positively associated with bone mineral density, whereas peptide YY did not show any significant associations with bone mineral density.

GENERAL COMMENTS:
1). The characteristics of the study population should be more clearly reported. How did the Authors enrol the study participants? The reasons for the referral of the study participants should be indicated. Was the study population representative of the entire Newfoundlander population?
2). The statistical analysis seems to be inadequate. In order to avoid the occurrence of misleading findings due to highly correlated independent variables the stepwise automatic procedure for selecting the models should be used and the whole set of variables should be included in the model. For each regression model the Authors must report not only beta coefficients but also 95% confidence intervals and adjusted R2.
3). The lack of any information about vitamin D status and bone turnover makers represents an important limitation.

SPECIFIC POINTS
1). The “Introduction” seems to be excessively long and should be shortened.
2). Did the Authors include the underweight subjects and or those with severe obesity (BMI> 40)?
3). The Authors should indicate for which reasons they did not measure “total hip” subregion (as suggested by current guidelines for bone mineral density)?
4). Table I: the values of BMI, Fat Mass and Lean Mass should be reported.
5). Table IV: the number of premenopausal and postmenopausal women should be reported.
6). The Authors should indicate whether the study population was homogeneously distributed by decades.
7). The limitations of the study should be taken into consideration and better
discussed.

**Level of interest:** An article of limited interest

**Quality of written English:** Not suitable for publication unless extensively edited

**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'