Reviewer’s report

Title: The relationship between the leptin/ghrelin ratio and meals with various macronutrient contents in men with different nutritional status: a randomized crossover study.

Version: 0 Date: 12 Sep 2018

Reviewer: Cinthya Wibisono

Reviewer’s report:

The authors have conducted a cross over RCT investigating leptin/ghrelin ratio in response to meals with different macronutrient content, in a study population of normal weight, as well as overweight/obese healthy males. It was of interest to note there were marked differences in fasting and postprandial hormone levels in response to macronutrient composition of meals, when comparing results of normal weight to overweight/obese subjects. Findings from this paper may be useful to inform the delivery of targeted advice regarding macronutrient composition of meals to help regulate satiety.

This paper contributes interesting findings to nutrition research, however, will benefit from revising grammatical errors, and adopting a scientific style of writing. For example, references to "people" within the manuscript should be replaced with "subjects" or "participants". Various sentences require re-structuring and/or re-wording, and it is recommended that the manuscript in its entirety be reviewed.

There also appears to be a lack of consistency in spacing between references and text.

Further comments regarding specific sections of the manuscript are as follows:

Background

The study aim should be stated within the background section, not in the methods section.

Background could benefit from including 1-2 referenced statements describing the cascade of hormonal response to different macronutrients, to acknowledge leptin & ghrelin are not the sole hormones responsible for regulating satiety/hunger.

Stronger justification is needed to highlight the importance of leptin & ghrelin, and why other hormones were not investigated in this study.

Does any published literature specify an ideal leptin/ghrelin ratio range?

Method
Please specify/reference classification for overweight/obese subjects.

Need clarity of study duration, i.e. each study phase.

Was the wash out period 1 or 2 weeks? Lack of consistency with the wash out period can confound results.

Please specify if this study was designed to investigate acute, or long-term, hormonal responses.

Description of meals will also be helpful for the methods section.

Could more in-depth description be provided for the biochemical analysis?

Results

Significant results should be discussed within the results section and denoted accordingly in the supporting tables and figures. This is currently missing.

It is unclear what "standardised meals" refer to in line 170.

There needs to be a more distinct explanation to distinguish the difference between results presented in Tables 3 & 4 to Figures 2 & 3.

Titles are missing from all figures.

Please specify units for BMI in Table 1.

Discussion:

Paragraphs are needed throughout this section.

Lines 179 - 182 will benefit from re-structuring to justify the study aim.

Lines 191-196 will benefit from providing referenced studies describing suggested mechanisms and/or implications for reported observations.

Please provide brief explanation of findings from references cited in lines 210- 212.

Study limitations have not been addressed.

References:

Formatting for 1st reference needs to be amended.
Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

Declaration of competing interests
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