Reviewer’s report

Title: Distinct metabolic profile according to the shape of the oral glucose tolerance test curve is related to whole glucose excursion: a cross-sectional study

Version: 0 Date: 01 Jun 2018

Reviewer: Edward Janus

Reviewer's report:

The title fairly accurately describes the study.

The limitations are well discussed with small numbers of individuals being the limiting factor so reducing power to show differences. There is actually no discussion of any power calculation. At least there could be some indication from other the studies noted by the authors.

Waist circumference is a specific example. p=0.065 so it does not reach statistical significance, likely as a result of small numbers but as a consequence this needs to be changed throughout the paper to a "trend"

In the methods section the key indices GUTT, insulinogenic index and disposition index need to be set out in more detail. There has been literature discussion on how well disposition index actually reflects Beta cell function so this should be discussed. In the results probably its better to use disposition index, as in the table, rather than beta cell function and to mention beta cell function in the discussion.

In results in the last line of the first paragraph its hard to match the numbers with the parameter concerned. It might be better to say "For some subjects data was missing as follows: waist circumference( 1 for B), Blood pressure (2 for M, 1 for B)…….glucagon( 39 M, 13 B)."

Discussion. Say very clearly in the first paragraph what the main findings are and what's new in your study.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes
Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

'I declare that I have no competing interests'

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons
CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.