Reviewer’s report

Title: The shape of the glucose response curve during an OGTT heralds β-cell function in a large Chinese population

Version: 1 Date: 25 Sep 2019

Reviewer: Simona Cernea

Reviewer's report:

The authors have substantially improved the paper. There are a couple of issues though that still needs adjustments.

Comment 1. "Many factors play important roles in the development of glucose intolerance in individuals with type 2 diabetes (T2D), such as insulin secretion, insulin resistance, and β-cell function" - this was not corrected. The pathogenetic mechanisms leading to hyperglycemia are multiple. Insulin secretion and β-cell function basically refer to the same thing. It should anyways be written altered (or impaired) insulin secretion (or β-cell function).

Comment 7. It is still not clear how the authors have chosen the threshold of 0.25 mmol/l. Were measure values subtracted by 0.25 mmol/l? What adjustment was done? And why only two response curves were adjusted? Not clear.

Comment 9. The SDs (error bars) in figure 2 are missing. Moreover, to figure 2 there is a reference regarding the effect on glucose status (pg 11, line 153), but the figure dose not reflect this. I would suggest to modify the figures by indicating the type of curve according to glycemic status or age - as means of measurements at each time points for these categories.

The abstract should also contain actual data in Results section.

The conclusion should indicate that he monophasic curve was also associated with higher HOMA-IR and older age
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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.

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Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
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