Reviewer's report

Title: Increment of plasma glucose by exogenous glucagon is associated with present and future renal function in type 2 diabetes a retrospective study from glucagon stimulation test.

Version: 0 Date: 05 Aug 2019

Reviewer: Akinobu Nakamura

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In this cross-sectional study, authors investigated the relationship in subjects with T2DM between Δglucose and clinical parameters including hepatic function, renal function and lipid profile. This study showed that Δglucose showed positive correlation with eGFR at baseline, but not with hepatic function. In addition, multiple regression analysis revealed that Δglucose was an independent determinant of the eGFR after one year. These results are interesting in essence. There are, however, some points which should be addressed for publication in this journal.

Specific comments

Criticism 1: (Abstract) "since we hypothesized that Δglucose is associated with the liver and renal function reflecting the capacity for gluconeogenesis in the organs." The reviewer would like to know whether the liver and renal function could reflect the capacity for gluconeogenesis in the organs. Please show the data or cite previous studies in the Background section.

Criticism 2: (Methods) Please describe how to obtain informed consent from subjects.

Criticism 3: (Discussion) "Indeed, liver and kidney are almost equivalently involved in glucose production via gluconeogenesis in the post-absorptive state of normal subjects." This sentence seems like a contradiction, since GST was carried out at 8 am after an overnight fast in this study.

Criticism 4: (Discussion) "Previous several studies already showed that obesity, glycemic control, serum lipids, and proteinuria were respectively the predictors for the development of chronic kidney disease." In this study, BMI and HbA1c were positively associated with eGFR one year later, which seems to be the opposite result of the previous study (Yamagata K, et al. Kidney Int. 2007; 71: 159-166). Please explain.

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.
Unable to assess

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

Yes

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 am able to assess the statistics

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

Acceptable

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