Reviewer’s report

Title: C-Peptide and cardiovascular risk factors among young adults in a southern brazilian cohort study

Version: 0 Date: 10 Jan 2018

Reviewer: Pavlina Andreeva-Gateva

Reviewer’s report:

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This is a paper describing multiple linear regression analysis between C-peptide and cardiovascular risk factors among young adults in a southern Brazilian cohort study, performed both cross-sectionally and longitudinally. The big advantage of this study is the high number of evaluated subjects and the long-lasting follow-up.

Comments

C-peptide is a marker of the beta-cell function. This has to be added to the Background and also to the discussion.

Although the possible therapeutic effect of C-peptide in diabetes type 1 was investigated, the accent of this paper has to be putted on the diagnostic rather than the putative therapeutic value. There is no information that the evaluated cohort is with diabetes type 1. Rather, one can suppose that at least some of the subjects are with risk for diabetes type 2. Discussion has to be re-written, as well as the introduction, adding pathogenical explanation to the findings.

It is not clear how exactly "the estimates were adjusted for fasting time". Please, explain.

A lot of variable were enumerated in the Method section, but without results, nor discussion, i.e "maternal skin color... monthly family incomes...alcohol consumption..." etc What about those parameters?

The sex was committed from the analysis. Why?

Results from ANOVA are presented in Table 2 with p-values, and Kruskal-Wallis was performed. In this case it has to be indicated those "p" are about which 2 columns?
Results from the multivariate regression has to be presented with intercept and variables, with coefficient (beta), SE, 95% CI, Wald x2 and p.

**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.

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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