Reviewer’s report

Title: The level of netrin-1 is decreased in newly diagnosed type 2 diabetes mellitus patients

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Reviewer: Ioanna Eleftheriadou

Reviewer's report:

The authors studied netrin-1 in 30 patients with newly diagnosed type 2 diabetes and 26 age- and BMI-matched healthy controls. Recent studies have shown that netrin-1 regulates inflammatory cell migration and thus plays an important protective role in inflammation. The authors found that newly diagnosed diabetic patients had lower netrin-1 levels in comparison with healthy subjects and that netrin-1 concentrations were negatively associated with HOMA-IR. This is a well-designed study with interesting results, but its cross-sectional design limits causal inferences.

Major criticism

1. The paper should be edited by a native English-speaker, since there are several paragraphs (especially in the introduction and discussion section) where clarity and sense of the manuscript is obscured. The meaning of the article is not clearly understood and the discussion section is difficult to read.

2. The authors in the discussion section try to elucidate how lower netrin-1 levels are associated with type 2 diabetes. However, this is not a mechanistic study and no conclusions can be drawn about how netrin-1 is related or not to β-cell dysfunction and insulin resistance. Therefore, it would be more reasonable if they shortened the section referring to the results of other mechanistic studies and explained more the implications of their findings.
Minor criticism

1. It is not clear when and how postprandial glucose and insulin levels were measured (2 hours after a test meal, random meal, OGTT?)

2. Non-diabetic participants had lower fasting insulin and higher postprandial insulin levels compared with diabetic subjects. How can the authors explain these results?

3. Did the control group include subjects with prediabetes (IFG or IGT) or were they excluded from the study?

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.

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:

Not suitable for publication unless extensively edited
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