

**Reviewer’s report**

**Title:** The Role of Small Intestinal Bacterial Overgrowth (SIBO) in Non-alcoholic Fatty Liver Disease (NAFLD) Patients evaluated using Controlled Attenuation Parameter (CAP) Transient Elastography (TE): A Tertiary Referral Center Experience

**Version:** 0  **Date:** 28 Dec 2018

**Reviewer:** Benjamin Misselwitz

**Reviewer’s report:**

The authors study assess obesity, fatty liver disease and SIBO in a cohort of 160 patients. While most of the associations tested were negative, central obesity was associated with SIBO and the frequency of some bacteria strains were associated with NAFLD and fibrosis. I have some suggestions.

Major points:

- This is a largely negative study. The conclusions in the last sentence of the abstract ("NAFLD is a complex disease" and "SIBO plays an important role in patients with obesity") are not supported by the data. Similarly, the last two sentences of the conclusion of the discussion are not supported by the data.

- Nutrition was not assessed (which would impact on microbiota and intestinal transit), data regarding smoking and alcohol consumption are also lacking.

- The study argues against the utility of the "SIBO" breath test (the association of obesity and SIBO is not clinically useful since obesity is immediately obvious). However, studying the microbiota seems to hold some promise. This seems to

- Multivariate analysis should be strongly considered. Controlling for age, gender might unmask some associations.

- Some tables should be fused if the same outcome is assessed. For all outcomes, the associations with all risk factors should be calculated. For instance, it is unclear why we do not see the association of epidemiological risk factors and fibrosis degree. It seems, only a selection of the data is presented.

- This is likely not the first paper studying the association of SIBO, obesity, central obesity, NAFLD, Fibrosis and the respective metabolic risk factors. However, the discussion does not attempt to put the data in perspective to the current literature (i.e. compare findings with previous studies).
- Most of the significant findings of the study would not be significant after Bonferroni correction (which is a further limitation)

- On some occasions the language of the paper needs improvement

Minor points:

- Line 26, for clarity, metabolic risk factors required or inclusion should be provided

- All exclusion criteria should be better defined (for instance is anti-HBc positivity already a hepatitis B infection?)

- Some data might be better presented as graphs (for better readability; this is a non-essential suggestion)

**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 am able to assess the statistics

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Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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