Reviewer’s report

Title: Diagnostic accuracy of controlled attenuation parameter (CAP) as a non-invasive test for steatosis in suspected non alcoholic fatty liver disease: a systematic review and meta-analysis

Version: 0 Date: 26 Aug 2018

Reviewer: Fabio Piscaglia

Reviewer’s report:

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There are a few mispelling and typos.

Page 13. Line 3 from bottom. Probably they would not like to state "is without bias", but rather "may be imperfect" or something similar.

For what concerns me, as a clinician, the analysis appears sound. However, the statistical analysis represent the core of this study, once the studies have been selected. I suggest the manuscript to be reviewed by a statistician as well.

One major concer is how the CAP applies to the everyday patient, who would not have fitted into a study (no indication for biopsy). In fact, the findings of this study could only apply to patients who (even in a study) were considered to usefully undergo a biopsy, which clearly does not represent the concutive patients entering ultrasound labs or hepatology offices. Moreover, this study declare to be focused in patients with histology proven NAFLD. The Authors state "In this study, we analyzed the diagnostic accuracy of CAP in distinguishing different stages of hepatic steatosis in liver-biopsy proven NAFLD patients, and assessed the possible contributing factors affecting CAP values"

However, a number of patients had no significant liver steatosis (S0). How could a diagnosis of histological NAFLD be achieved in patients in whom histology showed no steatosis?. What sort of disease did these patients suffer from?

In other terms, the findings of present study applies only to patients for whom a clinical suspicion of NAFLD has been raised (at least I guess so) and for whom a biopsy could be indicated. I expect that most patients with fully normal liver transamineses (a large majority of patients in medical offices) are not represented in this study. These are general considerations, however, I believe it is very important to put each study in the specific context in which the diagnostic tool will be applied and this study carried out an extensive statistical analysis but did
not deal enough about the correlation between the starting studies and the impact of the conclusions of the current 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 recommend additional statistical review

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

Acceptable

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I have a research contract with Esaote and received a Speaker Bureau honorarium from Meda Pharma 3 years ago.

Other relationship with industry (not related to the present study): Bayer, Bracco, Eisai, Guerbet.

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