Reviewer’s report

Title: "Hypothyroidism screening during first trimester in pregnancy"

Version: 0 Date: 11 Jul 2017

Reviewer: Eran Hadar

Reviewer's report:

The authors of this study aimed to investigate the question of thyroid screening during the 1st trimester, specifically to determine a TSH cutoff for sub-clinical hypothyroidism.

Overall:

I believe that the manuscript has an important message that should be published. However, at its current form, extensive revisions are needed in order to make this paper suitable for publications.

1. Some English grammar and editing is recommend

Abstract:

2. The aim of the study should be presented in the abstract

3. I suggest to strikeout the first paragraph of the results in the abstract, as it seems unnecessary data for the abstract that should be kept to the main manuscript only. Currently this information is not presented in the main manuscript

4. The abbreviations os SCH, anti-TPO and anti-TG should be clearly stated, even in the abstract.
Background:

5. "although it is well accepted…". This sentence is too long and confusing.

6. In the meta-analysis by Maraka et al. you failed to mention the association with ruptured membranes.

7. The latest ATA guidelines (Alexander et al. Thyroid 2016) suggest that in the absence of population specific nomograms for TSH the cutoff to define hypothyroidism is 4.0 and not 2.5. It seems that reference 5,6 do not cite the above mentioned international guideline by the ATA and ES, and that they are outdated.

Methods:

8. Refrain from using "patients", as the participant are per definition healthy pregnant women.

9. It seems that the first paragraph is misplaced, as it is a repetition of the study's objective, which should, and indeed does, appear in the introduction.

10. Many details are missing from the methods section, which currently seems to be to concise. The following matters should be addressed: 1) how was clinical data obtained - charts, files, interview, questionnaires; 2) What was the indication to visit the participating clinics - routine pregnancy follow up; 3) was other data considered. Such as parity, prior and current pregnancy complications (and if so, this data should be clearly defined and presented in the results)

11. Please explain how the sample size was established to be 100 patients? What is the "previous sample"? And what is a resample by the bootstrap technique?

12. The section that starts with: "to establish the cut-off…" belongs in a separate paragraph detailing the data analysis methodology. It is not part of the statistical analysis.
13. It also seems important that data on prior medical history, that may be relevant to the thyroid function, be at collected and considered. For example, prior abortions, prior preterm deliveries, family history of thyroid disease etc. - all these may be confounders. As this is an attempt to establish a nomogram, the population of the study should be as "clean" as possible from potential confounders.

Results:

14. Table 1 and the reference values for the kits is not part of the results, and are more appropriate as part of the methods.

15. Vital results are missing - Weigh, Height, BMI, age.

Discussion:

16. The quoted ATA guidelines are outdated. The authors should address the newer guidelines from 2016.

17. I fail to see the relevance of table 4. It is not part of the study, which aims to be an original article not a textbook chapter or review.

18. Please offer strengths and limitations of the study.

Reference

19. References 8 and 9 are missing.

20. Editions and page numbers are missing for references 11,12.
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.

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
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Needs some language corrections before being published

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