Reviewer’s report

Title: Association between thyroid-stimulating hormone and maternal hemodynamics in hypertensive disorders of pregnancy: An observational study

Version: 0 Date: 22 Aug 2019

Reviewer: Wilfried Gyselaers

Reviewer's report:

This is an interesting study, adding to current knowledge on maternal hemodynamics in pregnancies complicated with hypertension (GHD). The authors report an association between thyroid dysfunction and GHD, similar to what has been reported for cardiac and vascular diseases. Today it is not yet clear whether the latter association is causative or simply co-existing as two symptoms of the same underlying pathology.

The authors' conclusions on a causative link between thyroid dysfunction and GHD go too far in the current version: throughout the paper they state that thyroid dysfunction INDUCE, LEAD TO, PREDISPOSE TO hemodynamic dysfunctions. The paper's message will be scientifically stronger when they should interpret thyroid and maternal hemodynamic dysfunctions to two co-existing co-morbidities.

Hemodynamic changes during pregnancy are different between gestational trimesters. The authors have studied cases in the third trimester, so the observed associations are to be limited to this trimester only. An example: in the third trimester, cardiac output is known not to rise anymore (line 224-228), etc…

Current tables are too abundant, however they can function very well as supplementary material. Tables embedded in the text should be much more condensed and focused.

The Discussion section also is much too expanded and unfocussed. The authors could limit this section to the reported associations of thyroid dysfunction with other cardiovascular diseases, endothelial function/dysfunction and the hormonal environment of pregnancy (HCG).

Language can do better.

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?  
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No

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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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