Reviewer’s report

Title: Lifestyle and Environmental Contributions to Ovulatory Dysfunction in Women of Polycystic Ovary Syndrome

Version: 0 Date: 04 Dec 2019

Reviewer: Di Feng

Reviewer's report:

Polycystic ovary syndrome (PCOS) is a common disorder marked by ovulatory dysfunction and also supposed to be the main reason of anovulatory infertility. The pathophysiology and intrinsic mechanisms underlying are complex. Both genetics and environment factors are suggested as the main causes. Yet less was known about the latter. This paper describes the association of ovulatory dysfunction in PCOS with the environmental exposure as well as lifestyle based on a tremendous large sample size, which provided valuable indications on the etiology of ovulatory dysfunction in PCOS. Also the large sample size, detailed exposure information, ovulatory control women involved, and multiple variates adjustment were impressed and interesting. It is suggested to be accepted after minor revision.

Specific comments:

1. In Table2, what was the accurate definition of active and passive smoking? Detailed information (for example, frequency or amount of smoking) should be added.

2. The description of "cooking oil fume contact" in Table 2 was ambiguous. There were so many women contacting cooking oil fume at home or even in work place, however, the times and period might different. What is the exactly meaning of it?

3. Please explain the contradiction of the total sample size between the abstract (2217) and the method (2258).

4. As mentioned in limitation "the exact caloric intake per day was not recorded", it was not suitable to define the hyper-caloric diet. Meat or vegetable favorable or balance diet were better.

5. Line 49"it is the most common cause of chronic anovulatory infertility", reference needed.

6. Line 76, please describe more detailed about the cohort.

7. There are still some grammar mistakes in the text. It would be better if the text could be revised by a native speaker.
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:

Needs some language corrections before being published

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