Reviewer’s report

Title: A preliminary evaluation of influence of body mass index on in vitro fertilization outcome in non-obese endometriosis patients. An observational cross-sectional study

Version: 0 Date: 13 Apr 2017

Reviewer: Paola Vigano

Reviewer's report:

In this study, Garalejic and coworkers have analyzed the impact of higher BMI on IVF outcomes in non-obese endometriosis women. This on the basis of the evidence that a lower BMI would be a risk factor for the development of endometriosis. This is an observational cross-sectional study including 156 infertile laparoscopically-proven endometriosis women. Results obtained would indicate that overweight women with endometriosis do not have better IVF outcomes compared to normal and underweight women. On the other hand, there was a non-significant trend toward an increase of clinical and ongoing pregnancy rates with BMI increase.

The major issue of this paper is that the Authors did not provide a sample size calculation based on a primary endpoint. Therefore, it is highly likely that the study is underpowered. The potential clinical message behind this information is very important. However, with this low sample size (overweight cases n=29) and the absence of a sample size calculation, the risk is to have erroneously failed to detect a difference.

A more reliable message could be obtained including a higher number of patients.

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?
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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 recommend additional statistical review

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

Acceptable

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