Review of: "Effect of Supplementation with Moringa Oleifera on Antioxidant and Oxidative Stress Biomarkers of Infertile Women: A Pilot Open-Label Case-Control Randomized Clinical Study"

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Potential competing interests: No potential competing interests to declare.

The subject of the study is interesting, the hypothesis to be validated is adequate, and the methodology of the study looks correct. The obtained results are interesting from both theoretical and medicinal viewpoints. Nevertheless, their presentation requires serious improvement.

SUMMARY. *Moringa oleifera* should be *Moringa oleifera* Lam. The conclusion concerning its ability to improve pregnancy outcome should be deleted or weakened because this conclusion does not arise from the results of the present study.

INTRODUCTION is too long. The general information concerning male and female infertility, herbal therapy, and the non-reproductive effects of *Moringa oleifera* should be reduced, and this chapter should be focused more on the subject of the present study. Did the antioxidant activity of *Moringa oleifera* has been demonstrated previously? If no, why did the authors decide to perform this study?

METHODOLOGY. Please include more information concerning the patients (age, origin, signs, and possible causes of their infertility, etc.). It is difficult to understand for the reader whether the fertile and infertile women were discriminated according to the level of reproductive hormones or according to their real infertility. The t-test may be used only for analysis of groups with a normal distribution. Therefore, before performing the t-test, the normality should be demonstrated by the Shapiro or similar tests. In case of a non-normal distribution, the non-parametric statistical tests are to be used. I suggest to perform this statistical analysis.

RESULTS. How can P be 0,00? According to Table 2, no significant differences between the groups have been found. In this case, the indication $P<0.05$ in the legend is not necessary. More importantly, the authors may not claim that treatment has any influence on any parameter. Therefore, the title and final conclusion should be changed to „Infertility is associated with increased markers of oxidative stress and reduced markers of antioxidative processes, but treatment with *Moringa oleifera* Lam did not affect these markers.“

DISCUSSION. The statement concerning the influence of MO and the corresponding discussion of this influence should be deleted. The Discussion, Conclusion, and Recommendation should be completely rewritten; the Title and Summary too. The data concerning the antioxidative action of MO or other constituents and possible mechanisms of MO action on

female reproduction should be included and discussed. The lack of MO action in the present experiments should be explained too.