

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 study is quite an interesting one with the potential to underscore the relevance of antioxidant supplementation in the management of primary infertility. I wish to address some concerns about the design and interpretation of the results.

1. Being a clinical study, I was expecting at least a single-blind, placebo-controlled trial design where the control group ought to have been given a capsule with an equal quantity of inert substance to cancel out the placebo effect of swallowing. This seriously has the potential to impact the overall outcome.
2. The rationale for the 2g capsule is not clear. The importance of the administration of a graded quantity of the test substance was not exploited in the design. This limits the relevance of the study findings. If, for example, there had been a third group that took 1g of the MO capsule, the effect of the varying doses would have given an indication that the associated changes in pro- and antioxidant biomarker levels are attributable to supplementation with MO.
3. The choice of the statistical tool (Student t-test) for the analysis instead of a paired t-test is also another issue that has the potential to impact the results and conclusions. The t-test is suitable for comparison of infertile and fertile baseline parameters but not suitable for pre- and post-treatment analysis among the infertile groups.
4. There was no indication if the participants were given questionnaires to gather related demographic and behavioral data. Demographic data of participants was lacking in the report. The results expressed in terms of age and the effect of other factors like nutrition during the course of the study are lacking.
5. Typographical errors, e.g., in the conclusion section of the abstract, where *Moringa oleifera* was written as *moringer oleifera*, as well as in the body of the work, in addition to inconsistencies in parentheses () in some cases and [] in others for in-text citations, should all be reviewed.
6. Lastly, a clinical study of this nature ought to have been registered on online WHO-recognized clinical trial registration sites and given a registration number.
7. From the results, it is evident that supplementation with MO did not significantly ameliorate the oxidative stress associated with infertility.