

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, aimed at investigating the impact of Moringa Oleifera on female infertility, encounters several issues.

Introduction:

1. The rate of unresolved infertility is out of date. (Second sentence)
2. Additional citations are needed to support statements about male infertility and female infertility. If information is sourced from Wikipedia, it should be explicitly cited as such. (Third sentence)
3. Ensure proper citation for the information presented in the second paragraph of the introduction to maintain academic integrity.

Method

1. The use of the terms "case-control study" and "randomized clinical study" is confusing and appears to be inconsistent with the study design. Clarification is needed to accurately represent the research design. The randomization of 60 women into supplement and placebo groups is more aligned with a randomized controlled trial (RCT) design. The terminology should be revised for precision to avoid misleading the audience.
2. The randomization process, particularly the coin-tossing method, needs clarification. Randomization is intended to ensure equal distribution, but the explanation raises concerns about the effectiveness of this process in dividing the 60 women equally into the supplement and placebo groups. Tossing a coin can make the individual woman have a 50% chance into the supplement group or the placebo group. However, it doesn't guarantee the 60 women could be divided into two groups equally. The randomization process should be more rigorously described to address potential bias.

Results

1. Table 1 appears to present baseline data for a total of 60 women. However, based on the method, there should be 40 infertile women (30-20=10 in group 1 and 30 in group 2) and 30 women with established fertility.
2. The baseline characteristics, such as age and BMI, should be clearly presented for both groups to provide a comprehensive understanding of the study population.
3. The lack of baseline data comparison between Group 1 and Group 2 raises concerns about the effectiveness of

randomization. A comparison of baseline characteristics between the two groups is crucial to assess the success of randomization and address potential confounders.

4. The discrepancy between the title of Table 2 and the information provided in the methods section needs clarification.
5. The high number of lost follow-ups in the supplement group (20 individuals) is a significant concern. To maintain the purpose of randomization, a comparison of baseline data between the two groups and consideration of adjusting potential confounders is essential.
6. Comparisons of changes in markers between the supplement and placebo groups should be included in the results section. This analysis is crucial for understanding the intervention's impact and drawing valid conclusions.

Discussion:

1. The discussion should delve into the potential mechanisms behind the observed differences in TPP and OSI between the infertile and fertile groups. If there is no difference in OSI and TPP between the supplement and placebo groups, the authors should address this discrepancy and explore potential reasons for the lack of effect in the supplemented group.