

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.

REVIEWER'S COMMENT – Qeios Manuscript

CORRECTIONS AND SUGGESTIONS are highlighted in RED (in most cases).

The abstract is well written. It is concise and gives relevant information regarding the study and the need for the study.

INTRODUCTION SECTION

The section captures the necessary information that makes for good scientific research. The flow is commendable.

Paragraph 6, line 8: I would suggest that the authors put the line... namely, vitamins and minerals, in brackets after non-enzymatic. Reviewer's reason for suggesting change is because vitamins and minerals are specific as non-enzymatic antioxidant examples.

- Both enzymatic and non-enzymatic (namely, vitamins and minerals) antioxidants are present...

Paragraph 6, line 7: Maintain the spelling of antioxidant without a hyphen.

Remember to put the plant scientific name in italics.

METHODOLOGY

Ethical issues: Ethical approval was obtained from the Lagos State Ministry of Health, Ikeja, Lagos State, Nigeria.

Study population: ... attending Island Maternity Hospital, Lagos Island, Lagos State, Nigeria, diagnosed...

Fragment sentence as

These women were screened and randomized into two study groups (Figure 1). Randomization was performed by the tossing of a coin.

Group 1. This comprised 30 women ...

Group 2: This was the infertility control group. This group comprised of 30 women who were diagnosed with infertility.

Group 3: Fertility control group. Thirty (30) women with established fertility were recruited to establish the fundamental relationship between the variables as well as fertile and infertile women within the environment.

Figure 1 corrections

- There is no need to pluralize as 2gs. The correct way to write it is 2 g. Although it is pronounced two grams, the single letter symbol g is maintained.
- There should be a space between the numeral and the unit of measurement. E.g., It should be written 2 g and not 2g.
- Spelling of moringa is wrong. It was wrongly spelled as moringer instead of moringa in the Group 1 box.
- Rewrite for Group 2 box as – Group 2 control: Non-supplemented group (n = 30)

Collection of blood samples:

There should be a space between the numeral and the unit of measurement. Separate figure and unit – 5 ml.

Purchase of supplement: *Moringa oleifera* (MO) supplement was purchased from Afe Babalola University (Town, State, Country).

Write the full meaning of NAFDAC.

Generally, the methodology was well written. I am particularly impressed with the details in Supplement Dispensing and Accountability.

Laboratory methods

The principle of the test is based on the reaction between 2-thiobarbituric acid (TBA) and MDA.

*Authors omitted the acid

Determination of Total Plasma Peroxide (TPP) was performed using Fox-2 reagent as described by Miyazawa (1989), with minor modifications by Harma et al. (2003).

... as a function of the difference in absorbance between the test sample tube and the blank tube...

Total Glutathione was measured using the method described by Anderson (1985). The method is based on the reaction of GSH with the thiol reagent DTNB (5,5'....) to form glutathione disulfide (GSSG) and TNB (5-THI...),...

*Write the full mean at the first introduction of the abbreviation – Glutathione disulfide (GSSG).

RESULTS

First paragraph. Line 3 and 4. Recheck what you wrote. Results in table 1 indicated otherwise. Information not in sync.

Infertile = 168.97

Fertile = 290.78

Could it be that authors wanted to write ... "was lower in infertile women than in the fertile group."

Be consistent. Decide whether to use the lowercase "n" or the capitalized form of it "N" to indicate the number of subjects (sample).

It may be nicer if table 2 could be partitioned further to indicate that the first 4 parameters are oxidative stress markers while the last 3 are antioxidant biomarkers. Note that not indicating them with that subheading in the table does not in any way reduce the value of the table and your presentation.

DISCUSSION

The introduction to the discussion is nicely put.

Paragraph 3, lines 3-5:

The non-statistically significant levels reported in the plasma levels of MDA and TAC in the study group for this study could be due to the sample size used.

Reviewer Suggestion

- Write one or two more lines or sentences on some reports about MO antioxidant activities. Only one reference was accessed and cited here regarding the antioxidative power of MO. Buffer your work with a couple more references and documented study reports.

CONCLUSION

Premised on this, we recommend large population-based clinical trials using *Moringa oleifera* in cases of infertility among women to generate more data.

The authors write well. They are concise and do not waste words in communicating their intents and findings.

REFERENCES

A thorough combing of the reference section is needed.

Surnames and initials to be used, not full names.

List author names and not et al.

Note spelling of WHO - World Health Organisation (not Word).