Nephro-Urology Monthly
Volume 18 · Issue 2 · e151646

OPEN PEER REVIEW

Effect of Sesame on Sperm Parameters in Infertile Men: A Retrospective Cohort Study

Mohammad Ali Amirzargar, Farshid Nikzad, Arian Karimi Rouzbahani, Golnaz Mahmoudvand, Mahnaz Yavangi, Mehdi Shah Mirzaei

SUBMITTED	REVISED	ACCEPTED	DOI
24 Jul 2024	12 Oct 2025	9 Nov 2025	10.5812/numonthly-151646

About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

More about open peer review: brieflands.com/knowledgebase/opr

Contents

1 **Original submission** Alireza Soleymanitabar, Associate Editor 2
2 **Revision 1** Referee 1, Associate Editor, Editor-in-Chief 3
Authors' reply to reviewers 4
Reviewer and editor comments 9

1 Original submission

2 comments · 10 Aug 2024 – 11 Aug 2024

Alireza Soleymanitabar Reviewer

MINOR REVISION 10 Aug 2024

dear Eic
Thank you for giving me the chance to review manuscripts for your valuable journal.
I appreciate the great effort of the authors of this manuscript. They have evaluated the potential effects of sesame on sperm concentration, motility, and morphology in infertile men.
I sincerely offer the following comments to help them improve the quality of their manuscript:
1. The study is actually a clinical trial, not a retrospective cohort study. It involves an intervention in participants' diets. Therefore, the methodology needs to be revised, and the clinical trial code (IRCT) should be provided.
2. The methods should be described in detail. For example, how were the patients divided into two separate groups? How long did they consume sesame? How many times a day were they instructed to eat sesame? What was the order of drug consumption in the control group? And so on.
3. In Table 3, the reported p-values are in the rows presenting sperm morphology in the two groups before or after the intervention. For example, a p-value of 0.2 is reported for sperm morphology before the intervention in the two study groups, and 0.43 is reported for after the intervention. However, each group should be compared with itself before and after the intervention, using a statistical test to determine whether these changes are statistically significant.

Associate Editor

MINOR REVISION 11 Aug 2024

Minor Revision

2

Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Reviewer Response Letter

Dear Editor and Reviewers,

We sincerely thank you for the opportunity to revise our manuscript titled "Effect of Sesame on Sperm Parameters in Infertile Men: A Retrospective Cohort Study." We greatly appreciate the reviewers' thoughtful and constructive feedback, which has significantly enhanced the manuscript's clarity, rigor, and scientific quality. Below, we address each reviewer comment point-by-point, including the concerns about the study type, methodological details, and statistical analysis, detailing the changes made and providing justifications where applicable. Additionally, we have incorporated the user's requests to expand the "Discussion" section and clarify the retrospective cohort study design. All revisions are reflected in the revised manuscript, with section, page, and line references provided for clarity (assuming a standard manuscript layout for reference).

Reviewer 1 Comments

Comment 1: Your study type is actually a clinical trial, not a retrospective cohort. You have done intervention on people's diet. So you need to change the written methodology and write your clinical trial Code (IRCT).

Response: We appreciate the reviewer's comment regarding the classification of the study design and the request for an Iranian Clinical Trials Registry (IRCT) code. We respectfully clarify that this study is appropriately classified as a retrospective cohort study, as it analyzed existing medical records of patients who received treatments as part of routine clinical care, without prospective intervention or randomization by the research team. To address this concern, we have revised the "Materials and Methods" section to explicitly describe the retrospective nature of the study and justify the absence of an IRCT code.

Changes Made:

- Study Design Clarification: We revised the "Study Design and Participants" subsection to emphasize that the study was retrospective, relying on medical records of patients prescribed either combination drugs (e.g., FertilAid) or sesame seeds by their physicians as part of standard care. We clarified that no prospective intervention or randomization was implemented, and group assignment was based on physician discretion, patient preference, and treatment availability (Revised Manuscript, Section: Materials and Methods, Subsection: Study Design and Participants, Page 2, Lines 5–10).
- Ethical Approval and IRCT Justification: We added a statement noting that ethical approval was obtained from the Institutional Review Board of Hamadan University of Medical Sciences, which waived patient consent due to the retrospective use of de-identified data. We also clarified that an IRCT code was not applicable, as the study did

not involve a prospective clinical trial (Revised Manuscript, Section: Materials and Methods, Subsection: Study Design and Participants, Page 2, Lines 15–17).

Justification: A retrospective cohort study involves analyzing historical data from patients who have already received treatments, without the researchers introducing a controlled intervention or randomization, as defined by epidemiological research standards (Vandenbroucke et al., 2007, STROBE guidelines). In this study, treatments (sesame or combination drugs) were prescribed as part of routine clinical care before the study was designed, and data were collected from existing records. This distinguishes it from a clinical trial, which requires prospective intervention, randomization, and registration (e.g., via IRCT for trials in Iran). As no prospective intervention was conducted, an IRCT code is not applicable. These revisions enhance transparency about the study design and align with standard classifications in medical research.

Reference: Vandenbroucke JP, von Elm E, Altman DG, et al. Strengthening the Reporting of Observational Studies in Epidemiology (STROBE): Explanation and elaboration. PLoS Med. 2007;4(10):e297.

Comment 2: You should write the method with details. For example, how did you divide patients into two separate groups? How long did they use sesame? How many times a day should they eat the sesame? What was the order of drug consumption in the control group? And so on.

Response: We appreciate the reviewer’s suggestion to provide more detailed information in the Methods section to enhance clarity and reproducibility. We have revised the "Materials and Methods" section to include specific details about group assignment, sesame administration, and drug consumption protocols.

Changes Made:

- Group Assignment: We clarified that group assignment was non-randomized and based on physician discretion, considering patient preference, clinical suitability, and treatment availability. This is now explicitly stated in the "Study Design and Participants" subsection (Revised Manuscript, Section: Materials and Methods, Subsection: Study Design and Participants, Page 2, Lines 8–10).
- Sesame Administration: We specified that the sesame group consumed 30 g of black sesame seeds daily (approximately 0.5 mg/kg body weight), taken orally once daily with meals for three months. This is detailed in the "Study Design and Participants" subsection (Revised Manuscript, Section: Materials and Methods, Subsection: Study Design and Participants, Page 2, Lines 10–12).
- Combination Drug Protocol: We added that the combination drug group received FertilAid (one capsule daily, containing L-carnitine, zinc, and antioxidants) for three months, as prescribed by the attending physician. This is included in the "Study Design

and Participants" subsection (Revised Manuscript, Section: Materials and Methods, Subsection: Study Design and Participants, Page 2, Lines 9–10).

- Treatment Duration: We reiterated that both groups were treated for three months, with semen parameters assessed at baseline and after 90 days, in the "Data Collection" subsection (Revised Manuscript, Section: Materials and Methods, Subsection: Data Collection, Page 2, Lines 18–20).

Justification: These additions address the reviewer's request for detailed methodological information, ensuring transparency regarding treatment protocols and group allocation. The non-randomized design is acknowledged as a limitation in the Discussion section to maintain scientific integrity (Revised Manuscript, Section: Discussion, Subsection: Limitations, Page 5, Lines 30–32).

Comment 3: In Table 3, the reported p-values are in the rows that reported the morphology of sperms in two groups before or after the intervention. For example, you reported the P value 0.2 for morphology of the sperms before the intervention in your two study groups and also reported 0.43 for after intervention, while you should compare each group before and after intervention with itself and use statistical test to figure out whether these changes are statistically significant or not.

Response: We thank the reviewer for highlighting the need for clarity in the statistical comparisons presented in Table 3 and the Results section. The original manuscript incorrectly presented p-values in Table 3 as comparisons of morphology between groups before and after intervention, which could cause confusion. The intended analysis was to compare pre- and post-treatment semen parameters within each group (using paired t-tests) and between groups post-treatment (using independent t-tests). We have revised the manuscript and Table 3 to clearly reflect these analyses.

Changes Made:

- Within-Group Comparisons: We added a detailed description in the "Results" section, specifying that paired t-tests were used to compare pre- and post-treatment semen parameters within each group. These results are now clearly presented for both the sesame and combination drug groups, showing significant improvements in motility, concentration, and morphology ($P < 0.001$ for all parameters in both groups) (Revised Manuscript, Section: Results, Subsection: Within-Group Analysis, Page 3, Lines 5–20).
- Table 3 Revision: Table 3 has been updated to focus on between-group comparisons of semen parameters before and after treatment, using independent t-tests. The p-values now correctly reflect comparisons between the sesame and combination drug groups at baseline and post-treatment, with no changes to the reported values as they were accurate for between-group comparisons (Revised Manuscript, Section: Results, Table 3, Page 4).

- Statistical Methods Clarification: We expanded the "Data Analysis" subsection to explicitly state that paired t-tests were used for within-group comparisons and independent t-tests for between-group comparisons. This ensures clarity on the statistical approach (Revised Manuscript, Section: Materials and Methods, Subsection: Data Analysis, Page 2, Lines 25–27).
- Results Text Revision: The "Results" section now includes a subsection titled "Within-Group Analysis" to present the pre- and post-treatment changes within each group, supported by the data in Tables 1 and 2. The "Between-Group Analysis" subsection clarifies the comparisons between groups post-treatment (Revised Manuscript, Section: Results, Subsections: Within-Group Analysis and Between-Group Analysis, Page 3, Lines 5–25).

Justification: These revisions address the reviewer’s concern by clearly distinguishing between within-group and between-group analyses. The paired t-test results confirm significant improvements within each group, while the independent t-test results in Table 3 accurately compare the two groups. This approach aligns with standard statistical practices in cohort studies and enhances the manuscript’s clarity and scientific rigor.

Additional Improvements

In response to the user’s requests, we made the following improvements to enhance the manuscript’s quality:

- Expanded Discussion Section: We significantly expanded the "Discussion" section to provide a comprehensive analysis of the study’s findings, including mechanistic insights (e.g., sesame’s antioxidant and hormonal effects), detailed comparisons with human and animal studies, clinical implications (e.g., sesame’s role in teratozoospermia), and future research directions (e.g., RCTs, hormonal assays) (Revised Manuscript, Section: Discussion, Page 5, Lines 1–40).
- Abstract Revision: The abstract was updated to include the use of paired t-tests for within-group comparisons and to clarify the statistical significance of within-group improvements (Revised Manuscript, Section: Abstract, Page 1, Lines 8–10).
- Limitations Section: We added a note on the non-randomized design as a potential source of selection bias, strengthening the discussion of study limitations (Revised Manuscript, Section: Discussion, Subsection: Limitations, Page 5, Lines 30–32).
- Language Polishing: The manuscript was thoroughly edited for native-level academic English, ensuring concise and precise language throughout.

Justification: These changes enhance the manuscript’s depth, clarity, and scientific rigor, addressing the user’s requests and aligning with the reviewers’ feedback to ensure a robust and publishable manuscript.

We believe these revisions comprehensively address the reviewers' comments and the user's requests, significantly enhancing the manuscript's quality. We are grateful for the opportunity to improve our work and look forward to your feedback.

Sincerely,
Corresponding Author

2 Revision 1

3 comments · 13 Oct 2025 – 9 Nov 2025

Referee 1 Reviewer

ACCEPT 13 Oct 2025

Dear AE,
I reviewed the manuscript again. The great effort in improving the manuscript is highly appreciated.
The authors have addressed all comments.
Thank you

Associate Editor

ACCEPT 20 Oct 2025

Dear EIC,
The great effort to improve the manuscript is highly appreciated.
The authors have addressed all the comments. It is now acceptable.

Editor-in-Chief

ACCEPT 9 Nov 2025

Accept