

REVIEWER'S REPORT

Manuscript No.: IJAR-56631

Title: *Evaluation of Sub-Tenon Mitomycin-C Trabeculectomy with Amniotic Membrane Transplantation in Glaucoma: A Single Arm Prospective Study*

Recommendation:

- Accept as it is
- ✓ **Accept after minor revision.....**
- Accept after major revision
- Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance	✓			

Reviewer Name: Dr S. K. Nath

Detailed Reviewer's Report

Strengths of the Study:

- **Originality and Relevance:** The study explores a novel combination of two adjuncts sub-tenon mitomycin-C injection and amniotic membrane transplantation in trabeculectomy, addressing an important clinical concern of optimizing surgical outcomes in glaucoma.
- **Clinical Significance:** Demonstrates promising results in terms of intraocular pressure reduction, bleb morphology, and reduced medication dependency, which can influence future surgical practices.
- **Methodology:** Prospective design with clear inclusion/exclusion criteria and a defined follow-up period enhances the reliability of the findings.
- **Data Quality:** The comprehensive assessment of multiple outcome measures, including bleb morphology, postoperative complications, and success rates.
- **Contribution to the Field:** Adds valuable evidence on biologic and pharmacologic modifications to conventional trabeculectomy, particularly relevant to the Indian patient population.

Weaknesses of the Study:

- **Sample Size:** The small sample size (21 patients) limits the generalizability and statistical power of the findings.
- **Follow-up Duration:** A relatively short follow-up period of 3 months restricts assessment of long-term efficacy and safety.
- **Lack of Control Group:** Absence of a comparative or control arm (e.g., conventional MMC sponge application without AMT) hampers definitive conclusions about the added benefit of the combined approach.
- **Statistical Analysis:** The description of the statistical methods is limited; no mention of p-values or confidence intervals to support reported differences.
- **Potential Bias:** As a single-arm observational study, selection bias and observer bias cannot be ruled out.
- **Ethical Approval Details:** Although mentioned that ethics approval was obtained, specific approval details, such as the approval number, are not provided.
- **Presentation:** Several typographical errors and minor grammatical issues; figures and tables could be better integrated with more detailed legends.
- **References:** The reference list is comprehensive but could be improved for clarity and consistency; some references may be outdated or not directly relevant to the specific techniques used.

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Reviewer Comments:

- **Title and Abstract:** The title clearly states the focus of the study. The abstract provides a concise overview but could benefit from explicitly mentioning the study design (prospective observational) and sample size for clarity.
- **Introduction and Objectives:** The introduction effectively highlights the importance of wound healing modulation in trabeculectomy. The study objectives are implicit but would be clearer if explicitly stated at the end of the introduction.
- **Methodology and Statistical Analysis:** The methods are described sufficiently but lack detailed statistical analysis. Including specific statistical tests, p-values, and confidence intervals would strengthen credibility.
- **Results and Discussion:** Results are well-organized; however, the discussion might overstate some benefits without acknowledging the study's limitations. Long-term outcomes and comparative analyses are lacking.
- **Conclusion and Implications:** The conclusions are supported by the data but should acknowledge the pilot nature of the study and the need for larger, controlled trials.
- **Ethical Clearance:** Ethical approval is mentioned as obtained but with no detailed approval ID or institution named, which is essential.
- **Language and Grammar:** The manuscript generally reads well but has minor grammatical and typographical errors that should be addressed.
- **Tables and Figures:** Data presentation is clear, but figures (particularly intra-operative images and bleb morphology) could be more detailed with legends.
- **References:** Some references are older; inclusion of more recent studies could improve context.