



REVIEWER'S REPORT

Manuscript No.: IJAR-57977

Title: Percentage of Change in Clinical Outcomes of Albumin-CGFsgel as an Adjunct to Scaling and Root Planing in Stage III Periodontitis (Randomized Controlled Clinical Trial).

Recommendation:

Accept as it isYes.....

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

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

Reviewer's ID: JPR-Dr. Sireesha Kuruganti

Detailed Reviewer's Report

Abstract & Aim

- Lines 1–14: Clear background on periodontitis and rationale for adjunctive therapies. The introduction of Alb CGFs is well framed.
 - o Strength: Concise, logical flow.
 - o Weakness: Could quantify the “greater percentage reduction” with exact values in the abstract.
- Lines 14–20: Aim is explicitly stated.
 - o Strength: Focused and measurable.
 - o Weakness: Wording could be tightened (“analyse the percentage of improvement” → “evaluate percentage improvement”).

Introduction

- Lines 21–67: Strong contextualization of microbial dysbiosis and SRP limitations.
 - o Strength: Good linkage between biofilm disruption and disease progression.
 - o Weakness: Slight redundancy in describing SRP as “gold standard” multiple times.
- Lines 68–84: Local drug delivery (LDD) rationale is well explained.
 - o Strength: Balanced discussion of systemic vs local therapy.
 - o Weakness: Could cite more recent meta analyses on LDD efficacy.
- Lines 85–117: Albumin’s biological role and Alb CGFs preparation rationale.
 - o Strength: Excellent justification for albumin incorporation.
 - o Weakness: Needs clearer distinction between Alb PRF and Alb CGFs to avoid confusion.

Methods

- Lines 118–125: Inclusion/exclusion criteria are appropriate.
 - o Strength: Well defined patient selection.
 - o Weakness: No mention of oral hygiene reinforcement protocol beyond exclusion criteria.
- Lines 126–160: Ethical approval and study design.
 - o Strength: Proper randomization and ethical clearance.
 - o Weakness: Small sample size (n=20) limits generalizability.
- Lines 161–160: Alb CGFs preparation described in detail.

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- o Strength: Step by step reproducibility.
- o Weakness: No mention of sterility controls during preparation.
- Lines 161–160 onward: Procedures and statistical analysis.
- o Strength: Clear description of injection technique and statistical tests.
- o Weakness: No blinding of operator mentioned, which could bias outcomes.

Results

- Lines 161–199: Demographics comparable between groups.
- o Strength: Baseline equivalence confirmed.
- o Weakness: Small sample size reduces statistical power.
- Lines 200–240:
- o Plaque Index (PI): No significant difference between groups.
- Strength: Honest reporting of non significant findings.
- Weakness: Could discuss patient compliance more.
- o Bleeding on Probing (BoP): Significant reduction in Alb CGFs group between T1–T3.
- Strength: Statistically supported ($U=20.50$, $p=0.023$).
- o Pocket Depth (PD): Greater reduction in Alb CGFs group, significant T1–T3 ($p<0.001$).
- o Clinical Attachment Level (CAL): Significant gain in Alb CGFs group ($p=0.012$ baseline–T3).
- Strength: Strong evidence of adjunctive benefit.

Discussion

- Lines 241–281:
- o Strengths: Good integration of biological rationale (albumin's slow degradation, scaffold effect).
- o Weaknesses:
- Limited comparison with other adjunctive biomaterials.
- Could expand on clinical translation (long term stability, cost effectiveness).
- o Line 269–277: Contradictory literature cited appropriately.
- Strength: Balanced discussion.
- Weakness: Needs deeper analysis of why discrepancies exist (e.g., preparation variability).

Limitations & Conclusion

- Lines 282–320:
- o Strength: Transparent acknowledgment of small sample size and short follow up.
- o Weakness: No mention of operator bias or patient compliance variability.
- Lines 321–354 (References):
- o Strength: Recent and relevant citations (2023–2026).
- o Weakness: Some references (e.g., meta analyses) could be expanded to strengthen evidence base.

Overall Evaluation

- Strengths:
- o Clear methodology and reproducible Alb CGFs preparation.
- o Statistically significant improvements in BoP, PD, and CAL.
- o Balanced discussion with literature references.
- Weaknesses:
- o Small sample size ($n=20$).
- o Short follow up (3 months).
- o Limited discussion of long term outcomes and cost effectiveness.
- o Operator blinding not mentioned.

Recommendation: The manuscript is well structured and provides promising evidence for Alb CGFs as an adjunctive therapy. For publication readiness, I suggest:

1. Expand discussion on long term implications and cost effectiveness.
2. Clarify distinction between Alb PRF and Alb CGFs.
3. Add details on operator blinding and patient compliance.

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4. Strengthen literature comparison with larger meta analyses.