

REVIEWER'S REPORT

Manuscript No.: IJAR-52544

Date: 30-06-2025

Title: Syncrystallization in Immediate Implant Provisionalisation: A Review

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 Name: - Dr Aamina

Reviewer's Comment for Publication.

General Assessment

This manuscript presents a well-organized and technically sound review of syncrystallization as a method for immediate implant provisionalisation. The topic is highly relevant within prosthodontics and implantology, particularly with the increasing demand for accelerated rehabilitation procedures without compromising osseointegration and long-term success.

Strengths

1. Topical Relevance and Clinical Significance

The paper addresses an important advancement in implant prosthodontics—syncrystallization—that provides an innovative solution for reducing micromotion and enhancing initial stability during immediate loading protocols.

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2. Clarity and Focus

The structure is methodical, beginning with a contextualized introduction, followed by clear elaboration of the mechanism, technique, and biomechanical rationale. This logical progression enhances reader comprehension and maintains a strong thematic focus.

3. Scientific Rigor and Evidence Base

The manuscript references key findings from finite element analyses, in vitro studies, and comparative literature to establish biomechanical validity. The data on stress distribution and micromotion are particularly compelling and well-integrated into the argument.

4. Terminology and Technical Accuracy

Terminology is appropriate for a professional and academic audience in dentistry and implantology. The explanation of polymerization and the distinction between syncrystallization and other splinting methods (e.g., titanium welding) are clearly articulated and technically accurate.

5. Conciseness and Style

The writing is concise, objective, and maintains a scientific tone. It avoids redundancy and maintains coherence across sections, which is especially beneficial in a review-format manuscript.

6. Use of Quantitative Metrics

Including specific figures such as micromotion thresholds ($<150\text{ }\mu\text{m}$), and reported reductions ($<80\text{ }\mu\text{m}$), adds precision and empirical weight to the review.

Conclusion

This is a well-researched and well-articulated review that contributes valuably to the literature on immediate implant loading techniques. By combining clinical relevance with biomechanical insight, the manuscript offers a clear understanding of syncrystallization and its implications in implant dentistry.