

REVIEWER'S REPORT

Manuscript No.: IJAR-52649

Date: 05/07/2025

Title: To Evaluate the Fracture Resistance and Microleakage of Endodontically Treated Teeth with Simulated Cervical Cavities Restored with Different Restorative Materials

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: Sakshi Jaju

Date: 05/07/2025

Reviewer's Comment for Publication

Abstract:

The abstract clearly explains the aim of the study. It compares different restorative materials for their ability to resist fractures and prevent microleakage in teeth with cervical resorptive defects. The methodology is briefly described, and results are summarized clearly. The conclusion highlights Compomer as the best-performing material.

Introduction:

The introduction describes invasive cervical resorption (ICR) and its causes. It highlights the importance of choosing the right restorative material. The problem of microleakage and fracture risk is well explained. The reason for the study is clear and relevant. The background is well-supported with references and sets a good foundation for the research.

Data and Methodology:

The study used 128 extracted human teeth, divided into 8 groups, with 6 experimental groups and 2 control groups. Endodontic treatment was done for all teeth. Cervical cavities were created and restored using GIC, RMGIC, Flowable Composite, Compomer, Giomer, and SDR Flow. Fracture resistance was tested using a Universal Testing Machine. Microleakage was measured using Confocal Laser Scanning Microscope and Rhodamine B dye.

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The methods are well described and detailed. Grouping is clear. However, including a table summarizing group division, test methods, and materials would make it easier to understand.

Discussion:

The discussion explains how each material behaved and why. It refers to other studies and scientific reasoning like modulus of elasticity and resin bonding. It is informative and well-written, but slightly long. A summary table comparing all results would help.

Relevance and Contribution:

The study is useful for dentists managing ICR cases. It compares many common restorative materials and helps in material selection. The findings are important for improving long-term outcomes in restorative treatments.

Clarity and Organization:

The article is well structured. Each section flows logically. The language is scientific but can be simplified in some areas. Headings are clear. A few grammatical errors should be corrected. Figures and graphs are mentioned but not included in the text shared—these should be formatted properly with captions.

Overall Assessment:

This is a well-conducted in-vitro study. It answers an important clinical question. Compomer shows good results and may be recommended in similar cases. The study design is clear, and results are meaningful.

Recommendation:

Manuscript accepted for the publication.