Subject: [BDS] Editor Decision

Dear Heba Ismail, Seif Elgayar, Ahmad Aboelfadl, Tarek Salah, Nancy Rafla:

Your submission Digital Workflow Impact on CAD/CAM Crown Accuracy: A Five-Protocol Comparison. to Brazilian Dental Science, has been revised and according to reviewers' comments, there are questions to be addressed and/or points to be clarified/corrected.
Please answer the reviewers considerations point-by-point in a separate document and also please make all the corrections in the text highlighted in yellow.

Deadline: 30 days

Thank you for considering Brazilian Dental Science for publishing your research.
We are looking forward the revised version of you manuscript.

Sincerely,

Reviewer F:
Recommendation: Revisions Required

Questionnaire

Does the manuscript contain new and significant information to justify publication?*

Yes

Does the Abstract (Summary) clearly and accurately describe the content of the article?

Yes

Is the problem significant and concisely stated?

Yes

Are the methods or research design described comprehensively? Is the statistical analysis adequate?

No

Are the interpretations and conclusions justified by the results?

Yes

Is adequate reference made to other work in the field?

Yes

Is the language acceptable?

Not Applicable

Manuscript Structure

Length of article is:*

Adequate

Number of tables is:

Adequate

Number of figures is:

Adequate

Please state any conflict(s) of interest that you have in relation to the review of this paper (state "none" if this is not applicable).

Need Statical analysis and proofreading

Rating

Interest*

Average

Quality

Average

Originality

Average

Overall

Average

Recommendation

Major Revision

Would you be willing to review a revision of this manuscript?

Yes

Comments

Comments to the Author

Need Statical analysis and proofreading

Reviewer M:

Comments

Comments to the Author

COMMENTS TO THE AUTHORS

General comments
I would like to thank the authors for the opportunity to review this manuscript. The study addresses an important topic regarding the influence of digital workflows on marginal adaptation and internal fit of ceramic crowns. However, I have some concerns that are detailed below.
Introduction:
The manuscript does not explicitly state a study hypothesis. In addition, the introduction does not clearly explain the differences among the evaluated digital protocols or the rationale for selecting these specific combinations of scanners, software, and milling machines. The introduction should better link differences in digital protocols to their expected effects on marginal adaptation and internal fit.
The authors should clarify:
• What distinguishes each protocol in terms of data acquisition, design, and manufacturing?
• Why these specific protocols were chosen for comparison?

Methodology:
The methodology does not provide enough detail to ensure reproducibility.
Important aspects should be clarified, including:
Detailed description of the tooth preparation geometry.
Rationale for choosing a 90 µm spacer.
Clear description of how restorations were positioned for marginal adaptation analysis (was any material used to simulate the resin cement?)
The manuscript does not clearly isolate the effect of each factor (scanner,

software, milling machine). It is difficult for the reader to understand how much of the observed difference is attributable to: Scanner type, Design software, Milling machine (4-axis vs 5-axis).
A schematic table or flowchart illustrating the digital workflows and their differences is strongly recommended.
Terminology should be standardized (e.g., “marginal adaptation” vs “marginal fit”).
The internal fit measurement method deviates from commonly used protocols. Typically, replica specimens are sectioned in both mesiodistal and buccolingual directions. The authors only report a mid facio-palatal section. This may limit representativeness of internal gap measurements and should be justified.
According to the stated objective, the independent variables are scanner, software, and milling machine. However, the statistical model evaluates “digital protocol” and “measurement point” as factors. This does not allow assessment of the independent contribution of each component (scanner, software, milling machine). The authors should reconsider the statistical approach or clearly justify their model.

Discussion:
The discussion does not adequately explain:
Why certain protocols performed better than others,
How scanner, software, and milling strategies specifically influenced internal fit and marginal adaptation,
Why central fossa values were consistently higher.
The influence of each predictor variable on the study outcomes must be more clearly addressed.
Literature support is insufficient and outdated
The discussion relies on limited and partially outdated literature. The authors should incorporate more recent and relevant studies addressing: Digital workflow accuracy, 4-axis vs 5-axis milling, Data transfer and file conversion in CAD/CAM systems, Internal and marginal fit of ZLS or similar materials.
