

REVIEWER COMMENTS FOR PEERJ MANUSCRIPT (#111069)

Topic- The influence of cavity configuration and irrigation activation on root canal smear removal- an in vitro study

1. BASIC REPORTING:

- The basic language format used in the manuscript throughout is quite simple, professional and very clear to understand.
- In the materials and methods section, slight english spelling mistake is there in the term airoter in the access cavity preparation methodology part which needs correction.
- The introduction and background show enough context speaking about advantages of doing a conventional access cavity preparation over ultraincisal access cavity preparation. Introduction to the various irrigation activation systems has been nicely described.
- The article is structured in such a good manner conforming to the esteemed Peerj journal standards.
- Overall the study has been nicely done with all the necessary raw data provided in the manuscript.
- Figures are relevant, high quality, well described and the SEM images are also good describing about the smear layer removal aspect from the coronal, middle and apical third aspect.
- Limitations of this study has also been clearly mentioned by the authors and researchers of this study which shows that further studies in the future can be done in simulated in vivo clinical situations for better evidence based research. Need for inclusion of

multi rooted teeth with complex anatomical variations of root canal has also been mentioned as a limiting factor of the study.

- The reference system is according to the Vancouver system of referencing.

2. EXPERIMENTAL DESIGN:

- Original primary research is within the scope of the journal.
- Methodology is accurate with relevant information provided in regards to the smear layer removal from the pulp and root canal chamber portion in regards to different cavity designs types using various irrigation activation regimens.
- Research question is meaningful, well defined & relevant. It also specifies how the research fills an identified knowledge gap.
- The study has been nicely conducted on extracted teeth using all the necessary parameters, studying about the smear layer removal from coronal, middle and apical third of root canal.
- Rigorous investigation has been performed in an ethical standard way using high techniques.
- Methodology and results sections in the manuscript give sufficient detailed information in the form of box plots distribution of smear layer removal efficiency, SEM images of different groups in coronal, middle and apical third of the root canal, bar diagrams of smear layer removal efficiency % by different activation methods, pictures of the different types of access cavity designs also mentioned.

- Statistical analysis of comparison between smear layer scores between different groups in the coronal, middle and apical third of root canals has been calculated and analysed properly in the study.

3. VALIDITY OF FINDINGS:

- All the underlying data have been provided in the manuscript which is sufficient to assess the smear layer removal from different regions of root canal system using various irrigation activation regimens.
- Conclusion of the manuscript provided is well stated and gives a good link to the original research question and supporting results seen which are evidence based.
- The manuscript is now suitable for publication in the esteemed PeerJ journal.