Reviewer's report

Title: The Push-out Bond Strength of calcium silicate-based endodontic sealers

Version: 0 Date: 21 Apr 2018

Reviewer: Hany Mohamed Aly Ahmed

Reviewer's report:

Dear authors,

This paper aims to compare the dislodgement resistance of calcium silicate based sealers (Total Fill BC Sealer, Endo CPM Sealer, BioRoot RCS) with an epoxy resin-based sealer (AH Plus). I commend the authors for their efforts to undertake this research; however, there are major concerns that need to be addressed.

Introduction:

- Page 4 pdf - It is written in a thesis format and need to be revised. Paragraphs on commercial products can be changed/combined to a single paragraph on the material.
- Page 4: "Though there is some data about the interfacial interaction between calcium silicate-based sealers and dentine, relevant data about the dislodgement resistance of calcium silicate-based sealers are currently only available for Total Fill BC Sealer. Only few respectively no data were found for Endo CPM Sealer and BioRoot RCS." The structure of the sentences needs to be revised. Please add references of these relevant data. What is meant by Only few respectively no data?

Materials and methods:

- How the authors examine the canal configuration of the teeth and confirm that they were all one canal (radiograph?). Please add more details.
- Please add the inclusion/exclusion criteria of the teeth (caries, etc).
- "All teeth were cut to a length of 19 mm and a working length of 18 mm was established." I am not in full agreement of this statement because not all teeth have an apical constriction 1
mm short of the root apex (in addition, many times, the major apical foramen does not coincide with the root apex).

- Page 6 line 41: Please add the concentration of the NaOCl.
- Please briefly state the method of randomization used.
- Page 7 line 11: Perhaps it is better to replace canal orifices instead of coronal access cavities since the samples were decoronated.
- Along methodological procedures, there is no mention for the blinding of operator(s). Did the authors follow any guidelines for maintaining the study at a low risk of bias?
- Are the methodological procedures follow some other studies (if so please add references) or it is a novel way for examination?

Results:
- Reporting of results does not show any blinding procedure for the examiner.

Discussion:
- Some important points need to discussed - why examining the push out bond strength is important for root canal sealers? - any clinical implications?
- Page 8 line 60 - where is the reference number of the citation Chen et al 2013, Pane et al. 2013
- Page 10 line 13: Please replace lateral condensation with lateral compaction.
- Page 10 line 44: In what way the protocols are different.
- English requires minor revisions. Some words are written as UK and some USA (such as dentin, dentine). Please revise.
- What are the limitations of the study?
- Please a conclusion section.
Level of interest
Please indicate how interesting you found the manuscript:
An article of importance in its field

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

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