Reviewer’s report

Title: Augmented Reality for Dental Implantology: A Pilot Clinical Report of Two Cases

Version: 0  Date: 03 May 2019

Reviewer: Raquel Zita gomes

Reviewer's report:

1. The quality of the English language must be improved. Please ask the help of a fluent speaker.

2. This is not a case report, because you report on two cases. Please reformulate your title. This is pilot, but not a case report. Please define it as "report of two cases!" BMC does not require a running title, you can erase it.

3. Your abstract does not contain sufficient information. Please better describe your methodology in the abstract section. Please better describe what augmented reality is. What is the focus of your study? Your study outcomes? What do you want to demonstrate? Only accuracy or also feasibility?

If both please describe how you managed to evaluate the accuracy. Conclusions of the abstract: this is not a trial. The conclusions should be rewritten entirely.

4. Background. "Many studies are now available in the literature about drill guides and the accuracy reported is generally considered sufficient for most implant rehabilitations". Which ones?

"drill guides" what do you mean for it? you meant "static guided surgery" i.e. surgery by means of surgical templates, is it correct?

However I don't feel the costs of a static template/guide is higher than of a navigation system. I do not feel you should focus on the costs because it is clearly not an advantage of dynamic navigation. The advantages reported here should be others: accessibility, visibility, possibility to manage a flap, etc are clear advantages of the dynamic systems. Please rewrite your intro in accordance with these suggestions.

Similarly, I do not think that several studies have compared the accuracy of static vs dynamic. There are plenty of static systems and (some) dynamic.

"The aim of our pilot study is to evaluate the feasibility of adopting augmented reality as a mean to facilitate the use of dynamic navigation for dental implantology" is it a feasibility study? why you do not mention it the accuracy? what are your study targets? outcomes? endpoints?
5. Please provide ethics committee approval for this study. Please specify the outcomes/targets/endpoints of your study!

The clinical procedures are described in full details but data on the accuracy should not be reported in the Methods section, but in the Results.

6. No Results section???? Anyway the methods used for superimposition - as reported in Fig. 5 - is meaningless. How can you compare two positions of the same implant (planned vs actual) without any reference point (e.g., neighboring teeth, or other anatomic landmarks)? If the method is not solid please erase this part and just transform it into a feasibility study.

No radiographs showing the final position of the implants?

7. Discussion and Conclusions: This chapters should not be together. They should be separate. In the discussion the authors should discuss their findings in relation to the evidence from the literature but in the conclusions you should refer to the results obtained in this work.

The limitations of your work must be correctly highlighted.

Figures. I do not understand well. It looks not that 3D images/models are superimposed to the patient, but that only a computer screen (flat) is projected onto the patient - or laterally to him/her. It looks to me misleading. Aren't we talking about 3D models and superimposition of 3D models on the patient's anatomy?

Why just one case here if your report is "a report of two cases"? If so, two cases should be consistently documented and displayed. Otherwise, it is not a report of two cases but a case report.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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