Reviewer's report

Title: Is Human immunodeficiency virus (HIV) stage an independent risk factor for altering the periodontal status of HIV-positive patients? A South African Study.

Version: 1 Date: 26 August 2013

Reviewer: Sharon Liberali

Reviewer's report:

Decision: Major Compulsory Revision

1. Is the question posed by the authors well defined?
   a. yes but not completely

2. Are the methods appropriate and well described?
   • Yes, however I have some concerns regarding the lack of identification of smoking and cART in the HIV cohort researched. In the last paragraph in the discussion the authors state that they have given no consideration as to whether patients were on cART or not, due to the results of citation 31. I think it is important to identify which and how many of the research subjects are on cART, so as to find out if they have different a periodontal presentation from those not on treatment in this cohort of HIV subjects. In addition, it would have been beneficial to know the distribution of patients on cART within the three patient groups, and compare the periodontal indices between the cART and non cART in each patient group.
   • The authors identified that periodontal disease has a multifactorial aetiology and have taken into consideration some of the variables which impact on periodontitis by including these in their exclusion criteria. In the Background part of the paper, they state that “inadequate oral hygiene, smoking, age and HIV stage (immunosuppression) are recognised as risk factors…” While they assess the relationship of oral hygiene, age and HIV stage in their research, they do not identify how many of their patients are smokers, nor assess the periodontal impact on their HIV positive population as they have the other risk factors. This is surprising as the authors’ later state in the last paragraph of their discussion that they were unable to make a direct comparison to other studies due to “the lack of mention of confounding factors such as age, smoking…..”
   • I wonder if the authors do have the data on cART and smoking in their cohort, as this would make the research more robust?

3. Are the data sound?
   • Yes, but I think it would be important to identify the impact of smoking and cART on the periodontal status of the HIV cohort in this study

4. Does the manuscript adhere to the relevant standards for reporting and data
deposition?
• yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?
• yes

6. Are limitations of the work clearly stated?
• yes

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
• yes

8. Do the title and abstract accurately convey what has been found?
• yes

9. Is the writing acceptable?
• yes

Other changes required:
• the authors have described groups A, B, and C in the material and methods part of the Abstract, but it is incorrectly placed in the Results section in the body of article
• the last sentence in the Background section is superfluous and doesn’t fit in with the rest of the paragraph
• In the 4th paragraph in the Discussion section the authors state that only 10.83% of individuals managed regular dental visits, showing poor interest in maintaining better oral hygiene. I think this is unfair as there may be other reasons for not attending regularly including cost, access and transport limitations.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
'I declare that I have no competing interests'