Author’s response to reviews

Title: First characterization of methanogens in oral cavity in Malian patients with oral cavity pathologies.

Authors:

Elisabeth Sogodogo (elisabethsogodogo@yahoo.fr)
Ogobara Doumbo (okd@icermali.org)
Gérard Aboudharam (gerard.aboudharam@univ-amu.fr)
Bourema Kouriba (kouriba@icermali.org)
Ousseynou Diawara (ussynu@gmail.com)
Hapssa Koita (hapssakoita68@gmail.com)
Souleymane Togora (souleymanetogora@yahoo.fr)
Michel Drancourt (michel.drancourt@univ-amu.fr)

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First characterization of methanogens in oral cavity in Africa.

Elisabeth Sogodogo; Ogobara Doumbo; Gérard Aboudharam; Bourema Kouriba; Ousseynou Diawara; Hapssa Koita; Souleymane Togora; Michel Drancourt

BMC Oral Health

Dear Editor,

Please find enclosed the second revised version of our manuscript entitled “First characterization of methanogens in oral cavity in Malian patients with oral cavity pathologies” along with the answers of the authors to your own comment, and the Reviewers’ comments.
Editor Comments:

BMC Oral Health operates a policy of open peer review, which means that you will be able to see the names of the reviewers who provided the reports via the online peer review system. We encourage you to also view the reports there, via the action links on the left-hand side of the page, to see the names of the reviewers.

Authors’ answer: done.

Reviewer reports:

Oleh Andrukhov (Reviewer 1): In these preliminary study the prevalence of methanogens within the patients of the stomatology department of Bamako. The presence of methanogens in the oral cavity was never studied in African populations. However, the study is preliminary and limited, because it includes only the patients of the dental clinic and not a representative population. Furthermore, the number of study participants is rather low and therefore the manuscript could be considered only as a preliminary report or a pilot study.

Authors’ answer: The authors do agree with this comment, this point is clarified (Line 47, Lines 229-237).

Here are the major criticism points:

Data of the present study shows methanogens analysis in the population of Mali, but not in the whole of Africa. Therefore, the title and the text of the manuscript should be adjusted accordingly.

Authors’ answer: The reviewer is perfectly right, the title has been corrected accordingly (Line 1).

Furthermore, the study includes only patients of the stomatology department of Bamako. Therefore, this population is not representative of the whole population of Mali, because it does not include the persons without dental problems (healthy group). This circumstance should be reflected in the title and the text.

Authors’ answer: The reviewer is perfectly right and the Title has been corrected, accordingly (Line 1). Also, the text has been corrected according to this remark.

Demographic characteristics of the study group (age, gender, smoking status, etc) should be presented in table form as mean+/−SD for metric variables and absolute number/proportion for nominal variables.
Clinical parameters such as probing pocket depth, bleeding index, attachment loss should be provided for gingivitis and periodontitis patients.

Methanogens were detected only in eight samples, to which group belonged these patients?

P. 8, line 190. Authors mention that clinical data are unavailable for patient no 5. How it complies with the statement of data availability?

Authors’ answer: Data availability statement enforces that all data are made publicly available as soon as the manuscript is accepted for publication/published. Obviously, it just does not apply to unavailable data. In the present report, all data available for the authors are made available for the readers, including the fact that some data are just not available as for patient n°5.

Khaled Altabtbaei (Reviewer 2): Thank you for sending me this interesting manuscript to review. I appreciate that the authors have taken the time to address the issues identified previously. In the current state of the manuscript, I have some additional minor comments that I believe will enhance the applicability of the results once addressed:

- In several areas of the manuscript, a species was identified as "Methanobrevibacter massiliensis" along with quotation marks. I believe the author is describing the species identified by Hong T. T. Huynh (DOI: 10.1186/s13104-017-2980-3) which is M. massiliense. If so, then the name should be corrected, and be written without the quotation marks, as is the convention in writing species names.

Authors’ answer: The reviewer is right, corrected accordingly (Lines 43,44,51,81,177,191…).

- The abstract should mention that the authors were investigating both methanogens and associated bacteria

*Methods:

- While the authors have addressed the previously mentioned issue of not including inclusion and exclusion criteria, there are some inconsistencies regarding the inclusion and exclusion criteria and the patients that were recruited. For example: the authors mentioned that patients with periodontitis and dental abscesses were recruited yet table 1 has identified patient 2, 7 and 8 as gingivitis patients.

Authors’ answer: The authors thank the reviewer for this remark. This is an oversight. This forgetfulness are rectified (Line 100).
Moreover, while the periodontitis classification criteria has been addressed, it is still unclear whether the abscesses were of a pulpal or periodontal origin.

Authors’ answer: The precision was provided 1101 in the materials and methods section. The results are now including the answer (Line 172 and 173).

- In a similar fashion, patient #4 has been identified to have "Circumscribed cellulitis of the primary molar 75". While I appreciate that the authors have identified the clinical features of the case, it is important to know the actual diagnosis of the case based on established diagnoses by a professional society. The reason for this is because the term "cellulitis" can describe very different cases, depending on the region of the reader. For example: some readers which follow the ICD10 diagnoses code would only consider cellulitis involving fascial spaces to be the viable diagnosis worthy of the use of the term "cellulitis", which is by definition not circumscribed to an intraoral region, and has a much higher morbidity potential than a circumscribed abscess related to a necrotic pulp. A viable alternative would be to further describe the clinical findings in the case due to the differences in what could be considered as "cellulitis" among readers from different countries.

This can be simply addressed by indicating the cause of the problem (pulpal necrosis? gingival abscess due to foreign body impaction? ...etc). This will allow readers to associate the clinical features with a diagnosis using vernacular consistent with their region.

Authors’ answer: In agreement with this relevant remark, the precision was provided in Table 1 on the clinical data of the patient 4.

While it is mentioned in the discussion, it would be useful to discuss in the inclusion criteria that patients were recruited regardless of their recent antibiotics usage status due to its prevalent pre-operative usage in the studied population.

Authors’ answer: In agreement, with this remark, the precision was brought in the inclusion criteria (Lines 103-105).

As the authors answered all the two reviewers’ comments and corrected the manuscript accordingly, they hope that this second revised version will be accepted for publications,
Sincerely,

Prof. Michel DRANCOURT, MD, PhD
Corresponding author.