Reviewer’s report

Title: The vaginal microflora in relation to gingivitis

Version: 1 Date: 20 June 2008

Reviewer: Patrizia Brigidi

Reviewer’s report:

In the revised version of the paper the Authors satisfactorily answered to my previous comments. However, I still believe that the results reported in this paper are too preliminary to demonstrate a correlation between oral and vaginal infections.

Major compulsory revisions

Abstract

1. The results reported in the abstract are different from those reported in the text. In particular, in the abstract the Authors report that “a Nugent score of 0-3 was found in 83 women and a score >7 in 58 women”; in the Results section they report that “a Nugent score of 0-3 was found in 84 woman and a score of >7 was present in 49 women”.

2. At the end of the abstract (pag. 2) the Authors write “The bacterial cell counts in vaginal samples were significantly higher in subject with bacterial vaginosis for 54 out of the 74 species” but in the Results section the species reported are 49 (listed at page 5 and 6).

3. The conclusion sentence of the abstract should be rephrased because it’s not clear.

Results

There is an improvement in the results exposition in comparison to the first version of this paper. Still, I have some observations:

1. Pag 5. “Among the 134 women...” which women? In the abstract and M&M section the total number of women is 180, whereas in table 2 the total number seems to be 184 (114 women with gingivitis, 70 women without gingivitis). Clearly there is a contradiction or a typing error somewhere.

2. Pag 6. “The odds ratio for a diagnosis of BV was 5.3 for P. bivia and 4.4 for P. disiens.” It is known that the concentration of Prevotella increases in BV patients. Are these species isolated in gingivitis?

3. Pag 6. I think that the last part of the Results section (“Differences in bacterial levels by differentiation between subjects with any of four diagnostics combination”), in which the Authors look for correlations between BV and gingivitis, could be better explained. In particular, the Authors describe the significant differences between BV+/G+ and BV-/G- subjects, but these
differences could be just related to the BV. In my opinion, it would be more noteworthy to report the significant differences between BV+/G+ and BV+/G- subjects.

4. As the Authors recruited women “based on having a history of early preterm delivery or term delivery” (M&M section pag. 11) it would be interesting to include this parameter in the statistical analysis. Why the Authors didn’t do it?

5. It is not clear to me how the Authors calculated P values reported in tab. 3

Discussion

In my opinion, the discussion should be considerably shortened and more focused. In particular:

1. Pag 8. “This should be studied also in women without a recent history of pregnancy.” Why? Are the Authors interested in studying the association between gingivitis and an increase risk of preterm birth?

2. Pag 8-9. “Other recent studies have estimated the prevalence of gingivitis in adolescent subject at about the 50% level.” As commented above, since the Authors considered women with history of pregnancy, this sentence is irrelevant.

3. Pag 9. There is a whole paragraph (lines 5-14) about the gingivitis, the periodontitis and risk of preterm delivery. I think that it should be rewritten and shortened in order to better focus on gingivitis and preterm birth. In this paragraph the Authors could comment the results about the correlation of gingivitis, BV and preterm birth obtained by analyzing the 180 subjects enrolled in the study.

4. Pag 10. “The analysis of bacterial levels based on the four different combinations of vaginal and periodontal diagnostic criteria demonstrated that the highest levels of a large number of different bacteria in the vaginal samples occurred among women who were positive for both BV and gingivitis.” This sentence doesn’t correspond to the results shown (pag.6-7 and Fig. 1). In the Result section the Authors report the statistically significant differences for a large number of bacteria found between groups BV+/G+ and BV-/G- (pag 7). Results about the comparison with the other two groups (BV+/G- and BV-/G+) were reported only for P. bivia and P. disiens (Fig. 1).

5. Pag 10. “The analysis of bacterial levels based on the four different combinations of vaginal and periodontal diagnostic criteria demonstrated that the highest levels of a large number of bacteria in the vaginal samples occurred among women who were positive for both BV and gingivitis.” This is a repetition of a statement already reported in the Discussion section (see the above comment 4).

Materials and Methods

1. Page 11. “…were recruited based on having a history of early preterm delivery or term delivery.” How many of the 180 women recruited had history of preterm delivery? This info could be useful for the statistical analysis.

Minor Essential Revisions
1. Delete “?” (gingival ? disease) in the Background section (pag.4).
2. Pag. 6. Delete the parenthesis in the title of the paragraph at the end of the page.
3. Pag 10. “The data also suggest that in the absence of gingivitis bacteria such as B. ureolyticus, P. bivia, P. disiens, M. curtisii, M. mulieris and V. cambriense may not present in vaginal samples.” I think “be” is lacking (typing error).

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interest