Reviewer's report

Title: Association of Atopobium vaginae, a recently described metronidazole resistant anarobe, with bacterial vaginosis

Version: 1 Date: 28 November 2003

Reviewer: Gregor Reid

Reviewer's report:

General

1. In abstract, state number of patients, race and age range.
2. In Background, provide better reference than Hillier #2, for example citing Gardnerella, Prevotella and Mobiluncus associated with BV.
3. I don't follow the order of references. Is it in order of citation or alphabetical? The findings from ref 26 should be cited in first section of Background as it is the first use of PCR-DGGE for identifying vaginal microbes. In addition, Burton published in AEM 2003 and found DGGE to be useful to identify organisms not recovered by culture.
4. State which body approved the ethics.
5. I presume you have evidence that shipping does not spoil the detection of organisms.
6. P6 line 4 space needed.
7. Perhaps comment on the collection of a single swab as typifying the status of the flora, rather than taking swabs at days or weeks apart.
8. Please identify the organisms represented on the Figure 1 BV and Normal gels. Did the controls and BV patients have lactobacilli?
9. Better define "simple type". What does "limited", "predominant", "typically" mean? Be more specific so that future studies can reference what you found.
10. The description of Vaginal Cultures is misleading if no data are presented. I would have preferred to have had that data included, but I understand the reason for not doing so. Thus, maybe leave out the culture description.
11. Is there any evidence that Atopobium is found more often after repeated antibiotic use - thus perhaps a selection for these organisms is due to repeated metronidazole use? Could it be they are a result of treatment rather than a cause of failures? Where do they originate - the gut, from a male partner, environment? If drug resistant strains are also in the patients' gut, this explain some findings.
12. The Discussion reads well, although 43 references seems a lot for this paper.
13. Overall, this is an excellent contribution to the field and raises many questions about the vaginal flora. Sadly, too few studies are supported in microbial ecology. Given the importance of the vaginal microbiota in reproduction and the health of the host, more studies of this nature are needed.

Discretionary Revisions (which the author can choose to ignore)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes

Declaration of competing interests: NONE