Reviewer's report

**Title:** Investigation of Vaginal Microbiota in Sexually active Women Using Hormonal Contraceptives in Pakistan

**Version:** 4  **Date:** 2 July 2012

**Reviewer:** Liliana PASCUAL

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Title
Investigation of vaginal microbiota in sexually active women using hormonal contraceptives in Pakistan
Major comments
Page 4
Please clarify if blood agar is from human, sheep or other.
Bibliography cited in page 4 (7,8,9,10) is not directly related to biochemical tests used for bacterial identification.
Biochemical tests cited for Lactobacillus identification are incomplete.
Page 5
Results
Please describe the growth media used for isolation of each microorganism.
Preferably, authors should mention which growth media was used for Lactobacillus spp. isolation. Was MRS used in that analysis?
Biochemical tests used for microbial identification exposed in Table 1 are scarce. They do not provide valid information for genus and species determination. Therefore, Table 1 is incomplete in the present form.
Are only the listed microorganisms the founded in the biological samples? For Staphylococcus, Streptococcus and Lactobacillus genus only one specie was determined?
Page 7
In Discussion section authors mention that “The reason why the study… represent opportunistic group and etiology of most urinary tract infections have been attributed to these microbiota”. Candida and Lactobacillus are included in this group but none produce urinary tract infection. On the other hand, SGB is important just in pregnant women. Therefore, the justification is not correct.
Page 8
Please revise the paragraph “The high number of vaginal microbial…”. Those sentences take into account that women with HC, that have higher microorganisms correspond to Lactobacillus sp. and those have beneficial
properties to human health such as pathogen adhesion and growth inhibition, and production of antimicrobial compounds such as bacteriocins.

Figures 1 and 2
These figures do not provide interesting information and do not clarify results.

Minor comments
Page 2
Methods
Change “Hormonal” by “hormonal”

Results
Take off the point after Staphylococcus saprophyticus

Page 4
Staphylococcus and Streptococcus must be written in cursive.

Page 5
Results
Please change “novabiocin” for “novobiocin” and “catalse” by “catalase”

Page 6
Please justify the text
Revise the correct spelling for Lactobacillus and Candida must be written in cursive.

References
Bibliography is not well written. Please follow the usual scientific form and revise all the information required, ex. page number, publisher, some titles are incomplete, some journals names are complete but others are abbreviated.
Change “Baur” by “Bauer”.

Level of interest: An article of limited interest

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’s below