Reviewer’s report

Title: Investigation of Vaginal Microbial Flora in Women of Different Age Groups Using Hormonal Contraceptives in Pakistan

Version: 1 Date: 27 March 2012

Reviewer: Liliana PASCUAL

Reviewer’s report:

Title:
- Change “vaginal microbial flora” by “vaginal microbiota”.
- Modify “of different age groups” by “sexually active”.
- Please consult an English native speaker to improve the English style of writing

Abstract:
- Methods section should be moved before Results and discussion section
- Change “…Staphylococci sp…” by “Staphylococcus sp”
- Revise spelling: “Laobacctillus sp” by “Lactobacillus sp”.
- “in the group 31-40 years, statistically significant samples…”? Does it refers to samples or data analysis?

Conclusions
- Change “An Inverse…” by “An inverse…”.

Introduction:
- “Previous studies…contraceptive use” [1,2] and [3]. This information is based on 10-20 years old references. Please revise current data.

Materials and methods
- “…using hormonal conceptions…” Does the author means contraceptions?

Germ tube test
- “The tube …for 3 h”
Results:
- G+ve, G-ve change by G+ y G-
- For results explanation please report only the p-value e.g. “…of women using HC and 9% of the controls (p<0.05)”

Table 1
- Add “(n=100)” as a reference below the table and not in the title
- Please modify “S.No.” using “Strains”
- G+ve, G-ve change by G+, G-
- +ve;-ve change by “+” and “–”
- Catalase, Oxidase and Coagulase are not biochemical tests for Candida sp. Therefore, it should not be report as ND.
- Biochemical tests used for E. coli identification are scarce. They do not provide valid information to determine enterobacteria’s genus and specie.
- Staphylococcus and Streptococcus species must be identified.
- Biochemical tests reported in Table 1 are not valid to identify Lactobacillus genus.
- The first sentence of endnotes of Tables 1,2,3 corresponds to Materials y Methods.

Table 2
- Add “(n=100)” as a reference below the table and not in the title
- Please modify “S.No.” using “Strains”

Discussion:
- It is well known that vaginal tract hosts around 50 microbial species but only five were reported in this work. Authors should discuss if they investigated another microorganisms or are those five species the most important and thereby considered for this work.
- Results concerning to isolate percentages cannot be discussed accurately since E. coli and Lactobacillus sp. biochemical identification was not confirmed.
- Discussion must be made in response to the objective, and not divert to IU acquisition risks. Please note that altered ecological balance may stimulate other pathologies too.
- Please revise the paragraph “Collectively…the high number…”. Those sentences take into account that women with HC, that have higher microorganisms number, have also higher IU acquisition risk. This is not true since a major percentage of isolated 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.

References:
- Ref 8: modify “20002” by “2002”
- References should be actualized

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

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' below