Reviewer's report

Title: Chlamydia trachomatis serovar distribution in clinical urogenital specimens from Tunisian patients: high prevalence of C. trachomatis serovar E and mixed infections

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Reviewer: Xiang-Sheng Chen

Reviewer's report:

Major Compulsory Revisions

This paper is one of a few papers to report chlamydial infection and its genotype results in Tunisia. Some comments and suggestions on the current manuscript are as follows:

1. The authors mention in Introduction that “C. trachomatis infection seems to be prevalent in our country”. It means there are many patients infected with chlamydia, but number of specimens for the current study (sample size) over the 12 years seems too small to estimate the distribution of serovars when subgrouping in terms of gender, age, clinical manifestation, and time period is considered.

2. According to the results in Tables, it could be found that a one-sided test was applied to determine the statistically significant level, which results in an increase of the statistical significance by 2 times. However, a two-sided test should be used.

3. In Table 3, it should be appropriate to list the genotype distribution for those without infection (what infection?), infertility, or NG infection.

4. The Figure shows a trend of numbers of various genotypes. However, the authors did not provide the numbers of specimens collected each year and such trend doesn’t make any sense. For example, the small numbers in 2000, 2004 and 2011 may be due to small numbers of specimens collected in these years. Also, the authors mention that “serovar D emerged in 2008 whereas serovars A and B appeared in 2007” may be not relevant to the evolution of the genotypes over the time but to the specimen collection.

5. The explanation for difference in genotype distribution between men and women seems very subjective. However, more information about behavioral characteristics of the men (e.g., homosexual or bisexual behaviors) may be useful for explaining the difference.

6. The limitations of the current study in terms of study design, laboratory method, data collection and analysis, and interpretation of results should be mentioned.

Level of interest: An article of importance in its field
Quality of written English: Not suitable for publication unless extensively edited

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