Reviewer's report

Title: Seroprevalence of toxoplasmosis among veterinary staff: Implications for teratogenic risk

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Reviewer: Chia-Kwung Fan

Level of interest: A paper whose findings are important to those with closely related research interests

Advice on publication: Unable to decide on acceptance or rejection until the authors have responded to the compulsory revisions

The paper describing the seroprevalence of Toxoplasma gondii infection among veterinary staff, who attended the annual conference in Ontario Veterinary Medical College, Canada, is new and interesting. However, this paper, according to me, now can't be acceptable for publication in this journal, unless they further provide the statistical significance through calculating correlation coefficients, Odds ratio (OR) and 95% confidence intervals (95% CI) in their data.

General comments: Compulsory revision
1. Page 1. The title should be revised to "Seroprevalence of Toxoplasma gondii infection among veterinary staff in Canada (2002)". It seemed that all the participants in this study are healthy? Do you find that there have infected women staff given births to children severely affected by T. gondii infection in your study? Because "toxoplasmosis" is a disease characterized with symptomatic signs as the authors have already mentioned in page 3, line 17-18, using "Toxoplasma gondii infection" seems more appropriate in this paper. Keywords are suggested as: seroprevalence, Toxoplasma gondii, veterinary staff, Canada.
2. Page 2. Line 1. Background: "Toxoplasma gondii infection is teratogenic in pregnant women." is suggested.
3. Page 2. Results and Conclusion: Information concerning how the blood was collected and the gender as well as age distribution in the samples is unclear. Due to lack of definitely statistical evidence in the result, the conclusion they claimed in this paper seems inadequate. Please re-write the results & conclusions scientifically.
4. "toxoplasmosis" appearing in the text should be revised to "toxoplasma infection".
6. Page 3. Line 20. "Despite-----way to transmit toxoplasmosis" should be revised to "Despite-----way to acquire Toxoplasma gondii infection". In addition, how do you know health care providers and pregnant women believe that cats are the chief source of transmission in your study? If so, you must provide relevant references cited in your paper.
7. Page 4. Line 1 to 17. The structure of text in the 2 paragraphs should be intensively re-organized and polished in order to meet the scientific merits.
8. In paragraphs concerning participants and methods section, "During----veterinary staff----were asked to---(appendix A)" should be revised to "During----veterinary staff who participated in the study
were asked to---(appendix A)". Moreover, I can't find the appendix A, which the authors indicated in the text.

9. Page 5. Line 1. "aand" should be corrected. What type of ELISA machine was used to test sera anti-Toxoplasma IgG titer? In addition, such as manufacturer and where the machine was produced should be also indicated in the text.

10. What kind of statistical software system you used to analyze your data? In fact, I can't find any demographic data concerning gender, age category, type of practice, task performed etc. what you indicated in the text, including in Table 1 and Table 2. In addition, you had got to indicate what criteria do you use to judge the statistical differences between data you obtained?

11. Page 5. Results section. Paragraph about response rate does not seem necessary in the text because no further statistical description for this in discussion. The first 3 sentences in this section should be rewritten and/or deleted.

12. Page 6. The actual numbers of gender and age distribution with positive or negative reaction among the participants should be indicated clearly in the text and in the table.

13. Page 6. Line 4-6, "Interestingly,----titer (P > 0.001)". The paragraph should be removed to discussion section. Moreover, actual numbers of participants who owned or did not own outdoor cats should be also indicated in the text and in the table, and further statistical analysis should be also provided in the text and in the table.


15. Page 6. Discussion section. "---among veterinarians and veterinary technicians." should be revised to "---among veterinarians and veterinary technicians in Canada.”.

16. Page 6. Discussion section. The paragraph concerning response rate is not necessary should be deleted or revised.

17. Page 7. Discussion section. Line 1-2. The paragraph should be deleted.

18. Page 7. Discussion section. Line 19. Also, relevant references regarding the seropositivity you indicated should also be provided.

19. Page 9. References section. The format of reference cited in No. 1, 10, 11 and 12 is incorrect. Moreover, in No. 14, you should indicate that in French with English abstract in parenthesis. Please recheck all of the references you cited in this section carefully.

20. Table 1 & 2 should be rewritten.

Conclusive comments:

Again, you should provide the statistical significance of association between two binary variables, i.e., the risk factor (cleaning litter) and the response (seropositive rate) in your data through calculating the coefficients of correlation, Odds ratio (OR) and 95% confidence intervals (95% CI) to support the postulations what you proposed. In the present status, it is difficult for me to accept your paper to be published in this journal. In order to help you achieve this, I strongly suggest you to seek someone who is familiar with statistical analysis to assist you to present your data.

Competing interests:

None declared.