Reviewer's report

Title: Drinking well water and occupational exposure to Herbicides is associated with chronic kidney disease, in Padavi-Sripura, Sri Lanka.

Version: 3  Date: 15 December 2014

Reviewer: Luis Silva

Reviewer's report:

The paper is, in my opinion, a very good one. No important objections can be identified. The question is clear and perfectly defined. The data are convincingly obtained. The discussion and conclusions are properly based in the data, and in general terms, the article adhere to present standards of scientific communication.

• Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)
  None

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

I wonder if the figure is necessary. My opinion is that it can be eliminated without any important loss of relevant information for the reader.

I think the authors should clarify if “engaging in farming related activities” concerns what is currently happening. If so, I am afraid that the OR (page 10) about this condition can not be properly interpreted. The question is not what is happening “now,” but rather what happened before the patient fell ill. If current but not previous occupation was recorded, it would be overlooking the possibility of illness leading to a change in work. In such cases, the result would be to blur association between exposure—occupation—and outcome, and therefore any possible contribution of occupation or occupational conditions to the disease.

• Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

The authors say: “Study participants with a history of pesticide application had 2.34 times higher risk of developing CKDu, however, this association was not statistically significant (95% CI 0.97-5.57, p=0.57) most probably due to lack of power of this study.”

I suggest to reconsider to say that. The problem with this statement is that it is true; more specifically, it will always be true when no significant results are obtained, and, therefore, sterile. It is not fortuitous that it is impossible to come across with the opposite (and equally tautological) statement: “A significant difference between groups has been detected; however, perhaps with a smaller
sample size, this difference would have proved to be not significant”. Such a double standard is itself an unequivocal sign of the ritual employ of NHST. The authors do not need to use p values (presently undervalued).

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I have no competing interests at all.