**Author's response to reviews**

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

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**Author's response to reviews:** see over
30th December 2014,

The Editor,

Environmental Health,

Dear Editor,

Re: MS: 1669836534146658 - Drinking well water and occupational exposure to Herbicides is associated with chronic kidney disease, in Padavi-Sripura, Sri Lanka.

Thank you for accepting the manuscript with minor corrections. We agree with the comments made by reviewers. Below, we will describe in detail our responses and the corrections in the manuscript given within quotation marks.

Responses for 1st reviewers comments,

1. Authors tend to highlight some local scenarios that may be not important to the general reader of the article. I have indicated these sentences in the attached file and I would like to request the authors to remove them for the clarity.

   All highlighted sentences were removed except following two sentences.

   “The patients with CKDu were referred to the consultant nephrologist and the diagnosis was confirmed. All confirmed cases of CKDu was recruited.” This sentence was retained because it pertains to the validity of the selection of cases.

   “The information on whether the participants are presently drinking from a well, tap, spring or water from reservoirs was collected.” -We have shown drinking water drawn from well is associated with CKDu. This sentence describes the drinking water sources among participants and we feel it is essential.

2. There are some sentences that authors tend to discuss under results section which are not necessary. They have the option of discussion in the relevant sections so present only the results in the results section.

   These sentences were removed from the results and inserted in the discussion section.

3. Abstract needs reorganization

   We have re-written the abstract.

Responses for 2nd reviewers comments,

1. 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.

   Figure was removed.
2. 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 cannot 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.

Source of the drinking water, occupation and residence according to our belief are related to CKDu. All three variables can change with time as participants may change their occupation and change the source of drinking water. In all three cases we have specifically probed for the history during last 10 years. Majority of the participants in the endemic area are farmers and they die as farmers. They engage in farming even after they develop kidney disease. Therefore, the association between occupational exposure and outcome is very clear. However, in the method section to clarify the occupation we have elaborated as follows.

“Where the participants’ place of residence and the predominant occupation during the last ten years were recorded.”

3. 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).

The sentence is reorganized as follows. “A significant difference between groups has been detected with related to pesticide application (OR 2.34: 95% CI 0.97- 5.57) however, perhaps with a smaller sample size, this difference proved to be not statistically significant.”

Thanking You,

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