Author's response to reviews

Title: Ocular fundus pathology and chronic kidney disease in a Chinese population

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Author's response to reviews: see over
Re: Ocular fundus pathology and chronic kidney disease in a Chinese population

October 22, 2011

Dear Editor:

Thank you for your potential interest in our manuscript. We have revised the manuscript according to your suggestion. We hope you find this manuscript suitable for publication in *BMC Nephrology*

Sincerely,

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Reviewer 1

The manuscript has improved but I have two issues that I would like the authors to include:

1) include the questions used to define cardiovascular disease in the Methods section.
   - We have included the questions in the second paragraph of Page 4, which now reads:
     “All participants were asked, “Have you ever been told by a doctor that you had a heart attack?” and, “Have you ever been told by a doctor that you had a stroke?”.

2) 60% of those with retinopathy had hypertensive retinopathy which is defined differently from diabetic retinopathy. The description of retinopathy in the revised Method section fits the way diabetic retinopathy is defined. If the patients really had hypertensive retinopathy without diabetes they must have had very severe hypertension. Please include a paragraph discussing this in the Discussion section and include information on the degree (values of systolic and diastolic) of hypertension in the results section.
   - In our analysis, hypertensive retinopathy was classified into four grades with increasing severity (Keith NM et al. Am J Med Sci, 1939, 197: 332-43). Among 808 participants with hypertensive retinopathy and without diabetes, the majority of them (93.6%) were classified as Grade 1 or Grade 2 hypertensive nephropathy. The prevalence of hypertensive retinopathy in our study population was 11.0%, which was not significantly higher than previous reports (Yu T et al. Arch Ophthalmol, 1998, 116:83-9; Wong TY et al. Ophthalmology, 2003, 110: 658-66). Furthermore, it seems to us that detailed discussion of hypertension retinopathy does not fully fit the topic of our manuscript. Therefore, we have not included the discussion in the revised manuscript, while we are happy to do so at the discretion of the editor.

   The means SBP and DBP of those 808 participants were 137.3±17.5mmHg and 76.8±10.4mmHg, respectively. We have added the results in the third paragraph of Page 6, which now reads:

   “There are 808 participants with hypertensive retinopathy and without diabetes, with mean systolic and diastolic BP of 137.3±17.5mmHg and 76.8±10.4mmHg, respectively.”
Review 2

The authors have responded to my previous comments. However, I still have some comments for the authors.

Minor essential revision

1. In the current study, ocular fundus pathology was associated with proteinuria but not with either eGFR or the combined CKD outcome after adjusting for potential confounders. This should be clearly mentioned in the first paragraph and the concluding paragraph of the discussion.

   - We agree that only proteinuria was independently associated with ocular fundus pathology in our analysis. We have revised the concluding paragraph (last paragraph, Page 9) as the followings:

   “An independent association of ocular fundus pathology with proteinuria was observed; therefore regular eye exam among persons with proteinuria is warranted.”

2. Under “Methods”, section, “Evaluation of ocular fundus pathology”, the authors need to define the main exposure ‘Any ocular fundus pathology’. In addition, since the authors have evaluated ‘other ocular pathology’, I suggest presenting the prevalence of this condition as well under “Results”.

   - We have added the definition of “any ocular fundus pathology” in the second paragraph of Page 3, which now reads:

   “Any ocular fundus pathology” was defined by the presence of at least one of fundus abnormalities mentioned above.

   We have added the prevalence of other ocular fundus pathology in the third paragraph of Page 6, which now reads:

   “Among all participants, the prevalence of retinopathy, glaucoma suspect, age-related macular degeneration and other ocular fundus pathology was 17.3%, 2.0%, 1.0% and 1.7%, respectively.”

3. The authors have presented the results of the combined CKD outcome in Table 2. However, the results of this analysis have not been interpreted under the “Results” section.

   - We have included results of combined CKD in the first paragraph of Page 7, which now reads:
“The adjusted OR of CKD for any ocular fundus pathology and retinopathy was 1.18 (95% CI 0.99-1.41) and 1.19 (95% CI 0.98-1.44).”

Discretionary revision:

4. Please include a reference for the definition of retinopathy as appropriate

- We have included two references at the second paragraph of Page 3.