Author's response to reviews

Title: Does decreasing serum uric acid level prevent hypertension? - A nested RCT in cohort study: Rationale, methods, and baseline characteristics of study cohort

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Version: 8 Date: 10 October 2013

Author's response to reviews: see over
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Version: 3 Date: 11 OCT 2013

Author's response to reviews:
Reviewer’s report

Title: Does decreasing serum uric acid level prevent hypertension? --A nested RCT in cohort study: Rationale, methods and baseline characteristics of study cohort

Version: 6 Date: 14 July 2013

Reviewer: Francesca Viazzi

Reviewer’s comments: The reviewer appreciate the effort that the authors put in improving the manuscript. Nevertheless, the main problem of the present protocol is the plurality of lifestyle recommendation will be suggested to the participant. In fact, the education package of dietary intervention might be associated with a reduced risk in the development of hypertension due to the variation in sodium intake rather than to the decrease in serum uric acid possibly achieved in the intervention group. These individualized recommendation will make very difficult the interpretation of results that cannot be analyzed on the basis of important information such as the sodium intake. While authors stated that urine will not be collected, a surrogate estimation of sodium intake should be devised (i.e., from a detailed record of diet). This point should be detailed in the manuscript

Response:

We agree with the reviewer that there might be confounder bias induced by sodium intake. We planned to collect data on sodium intake and run adjustment during analysis. Family-based salt consumption was investigated, and average salt intake of family members was used as an estimation of our study individual variables. There may be variability in the salt intake among family members, and it may induce measurement bias. To adjust this potential measurement bias, a supplemental question was designed to identify if the participant favored more or less salty food than other family members when collecting.

The following text was added in investigational plan: A question was designed
to investigate average salt intake of family members and a supplemental question was used to identify if the participant favored more or less salty food than other family members.

Reviewer: Sunil V Badve
Version: 6 Date: 23 July 2013
Reviewer's report:
The authors have addressed most of the comments. However, the following issues are not addressed appropriately.
1. Potential confounding due to targeting multiple risk factors that are common for both- hyperuricemia and hypertension, thereby decreasing the ability to draw meaning conclusion
2. Not providing any supporting evidence for the assumptions for sample size calculation.
If the authors are unable to address these points, it should be discussed as 'limitations of the study'.

Response:
*The following text was added in discussion section:* Limitations of the current study include those inherent to any study of common lifestyle factors for both hyperuricemia and hypertension. In all dietary studies focusing on individual lifestyle factors, there is the potential for confounding due to the fact that many lifestyle factors are correlated. Information of potential confounding factors including sodium intake were collected as much as we can and multivariate statistical analysis will be adopted by considering multiple risk factors. Another potential limitation would be the size of the cohorts. As noted previously, there are many potential confounding factors should be taken into account to draw meaning conclusion. The current estimated sample size might attenuate the power of this study. The sample size would be re-calculated after preliminary
results were obtained from the cohorts and a sequential design was considered.

Sincerely yours

On behalf of the co-authors,

Yuan Wang and Wenli Lu