Reviewer's report

Title: Age-related associations of hypertension and diabetes mellitus with chronic kidney disease

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Reviewer: Kenrik Duru

Reviewer's report:

I have read the authors' response and appreciate their response to the points raised by me and the other reviewers. The only outstanding issue to my mind is the interpretation of what their findings mean, namely the fact that factors other than HTN and DM assume increasing importance of causal risk factors in CKD among older patients.

The authors have chosen not to address the issue of cardiovascular/atherosclerotic disease at all, which I think leaves the reader with a mistaken impression.

There are a lot of older people who have atherosclerotic disease without HTN & DM, or any of the other covariates in the model. Just age >70 alone in men predicts a 12-15% risk of a coronary event over 10 years in the Framingham model, so the prevalence of atherosclerosis is higher than that. If the population burden of atherosclerosis is high, then even small associations between "idiopathic" atherosclerosis and CKD would lead to a significant population impact.

For example, there is evidence that renal artery stenosis is found in 20-30% of patients with ESRD (van Ampting, Nephrol Dial Transplant 2003) and we know that a substantial minority of patients with RAS are not hypertensive (Rimmer, Annals Internal Medicine 1993). RAS is progressively more prevalent and relevant in older patients. The role of MI leading to CHF may not be as clear, but we certainly know that CHF and CKD are linked.

All of this is to say that I think the authors need to consider this entire issue from a clinical perspective, and provide a thoughtful discussion, which shouldn't take more than a few sentences. I am not sure that we fully understand the risk factors for age-related atherosclerosis (i.e., why there are so many points for age in the Framingham score, independent of other specific risk factors), but at least this issue needs to be addressed in the context of identifying the cause of CKD in older adults.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.