Reviewer's report

Title: The Relation of C-Reactive Protein to Chronic Kidney Disease in African Americans: The Jackson Heart Study

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Reviewer: Peter Barany

Reviewer's report:

This is a cross-sectional observational study of African Americans and associations between CKD and CRP levels. A few comments and criticism of the study:

1. The selection of participants is made in four different ways; from the ARIC study (driving licence registry, from the Acudata list, from volunteers and from the JHS family study. How well balanced is the final population, i.e. is there a risk that sick individuals are underrepresented? You may compare your population's GFR distribution with the NHANES study.

2. The MDRD formula is not particularly suited for population surveys since it is validated in a US CKD population with GFR <60 ml/min. When using a cut-off of 60 ml/min there is great uncertainty if the participants are correctly classified. However, I accept its use since more precise estimation of GFR is not available.

3. You may subdivide the population further; Without CKD is GFR>90 and no albuminuria, CKD 1 is GFR>90 and albuminuria,CKD 2 GFR 60-90 ml/min.

4. Overall, I think the headings of the Tables do not sufficiently describe what is shown. The Tables (and Figures) should be possible to read without further information from the text.

4a Table 1; Low and High CRP are not defined and the values (<5.6 and >5.6 mg/dL) are not correct. CKD should be defined in the table. Albuminuria could be included

4b Table 2-3 It is not clear which analyses have been done and what you show in these tables. As I understand you have adjusted the CRP values with data obtained from multiple regression calculations, please explain how this calculation has been done. calculation of hazard ratios with Cox regression analysis may be another way to describe the association between CRP and GFR<60 (or albuminuria). Then you need to define either a CRP (or albuminuria) cut-off or use CRP/albuminuria as a continuous variable (absolute or log CRP). Compare e.g. analyses in the paper by Astor et al (Am J Epidemiol 2008;167:1226–1234).

5. Some recent papers may be of interest for the discussion (e.g Astor et al Am J Epidemiol 2008;167:1226–1234, Elliot et al JAMA. 2009;302(1):37-48).

Level of interest: An article of importance in its field
Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I have no competing interests.