Reviewer's report

**Title:** Gender differences in the association between socioeconomic status and hypertension incidence: the Korean Genome and Epidemiology Study

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**Reviewer:** sam-ang seubsman

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The aims of this study were to examine gender difference in the association between socioeconomic status (SES) and hypertension incidence, and to evaluate whether adiposity mediates relationship between SES and incident hypertension and is a contributor to the gender difference. The study obtained non-hypertensive participants during four years with two follow-ups from the Korean Genome and Epidemiology Study (KoGES). SES was defined by self-reported educational attainment and monthly household income.

Authors concluded that lower SES women were even more likely to develop hypertension than men. It was of interest for contribution to the literature supporting the need for a stratified approach for the prevention of hypertension among women especially those with low education attainment.

**General comments:**

The questions posed by authors are well defined. Since the data are obtained from the KoGES it is reasonable to anticipate that they are sound. Tables containing analytic data appear to be of good quality. Overall the manuscript appears to be coherent. Limitations of the work are clearly stated.

However, I have minor comments that need authors’ attention.

1. **Methods**
   **Study sample**
   Participant numbers are confusing. Line 30, indicated 3897 men and 4197 women without hypertension from KoGES baseline. Line 85, said that initial number included 10,038 participants but in line 91, mentioned participants original number were 10,030. Moreover, when sum up with those omissions, the number was different from 5,287 participants. It will be of help to develop a flow diagram of total participants and exclusions that were drawn from KoGES database so that will give clearer picture of the sample structure and size.

   **Validation and reliability test**
   Authors applied standard questionnaire from KoGES which is unknown to readers. It would be helpful if the paper provided some ideas about validation
and reliability of variables captured from the KoGES standard questionnaire.

2. Discussion and conclusions are well balanced. However, the KoGES questionnaire provided life style factors (line 98-99) and the authors indicate that lifestyle behaviors may cause the SES disparities (line 248), why it was not included in the adjusted model.

Even though the paper is focused on Korean society and not to be generalized, I think this paper contributes to knowledge and should be acceptable to be published.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.