Reviewers report

Title: Estrogen Receptor 1 Gene Polymorphisms Are Associated with Metabolic Syndrome in Postmenopausal Women in China

Version: 0 Date: 08 Feb 2018

Reviewer: Indulekha Karunakaran

Reviewer's report:

1. The title of the article says "Post-menopausal Chinese women". But the study was done in one medical center. The title is misleading because one medical center does not represent Chinese women. The title should be modified accordingly.

2. The methods section should include more information about the methods of estimation of each of the biochemical and clinical parameters. How were blood pressure and waist circumference measured? Was LDL-C measured or calculated using Friedewald formula?

3. How was the sample size of the study determined? Did the authors make a sample size calculation? If so, a short description about the sample size calculation should be included in the methods section.

4. Abstract section: Results, line 3: higher than those in the controls.

5. Which internationally accepted guideline was used in the diagnosis of metabolic syndrome? A cut point of ≥85 cm is used for waist circumference. Is it a Chinese specific guideline? Also, what is the criteria used for general obesity? These details should be clearly mentioned in the methods section.

6. Rsal1082A>G and AluI1730A>G polymorphisms are within the ESR2. In Table 2, it is mentioned that these polymorphisms are in ESR1. This should be corrected.

7. It is mentioned that "The minor alleles of the XbaI and PvuII gene polymorphisms in the homozygous or heterozygous form were associated with higher waist circumference, fasting serum insulin, HOMA-IR, and NAFLD (%)”. This association is not demonstrated in the results section. Only descriptive data has been included.
8. It is also mentioned that "Among subjects with the Rsa I polymorphism, carriers of the minor G allele in the homozygous or heterozygous form (AG or GG genotypes) had higher TG, LDL-C, fasting serum insulin, and HOMA-IR. In subjects with the Alu I polymorphism, carriers of the minor G allele in the homozygous or heterozygous form (AG or GG genotypes) had higher total cholesterol and LDL-C". This data is also not shown

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

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