Reviewer's report

Title: Age at Menarche and Risk of Gestational Diabetes Mellitus: A Population-Based Study in Xiamen, China

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Reviewer: Youjie Wang

Reviewer's report:

This study of wang et la demonstrated that earlier age at menarche is associated with higher risk of gestational diabetes mellitus among a Chinese populations. The authors included a total of 70041 women. The results provided important evidences in field of the potential health effect of age at menarche. However, there are areas that need further clarification/attention.

1) the research data used in the study were extracted from the medical birth registry system, incomplete data or missing data are common in such registry system, how did the author deal with the missing or incomeloned data?

2) is there any difference in characteristics between the subjects included (70041) for the analysis and those not included (279992)

3) hepatitis B surface antigen (HBsAg) positive seems higher in these study subjects, do the author have any reason to explain it. Why hepatitis B surface antigen (HBsAg) was adjusted in the regression model, is there any evidence to show the relationship between hepatitis B surface antigen (HBsAg) and GDM?

4) In the method part, the author showed that they also have extracted the data on pregnancy, labor, gestational weight gain, hypertension in pregnancy. These factors are related with GMD. Why the authors did not adjust this characteristics in the regression model

5) In the discussion part, the author declared that their study isthe first study to demonstrate the association between an earlier age at menarche and elevated glucose levels after a glucose load. It was not true, several studies focus on this topic were published.

6) in the discussion part, "Moreover, our study population was a relatively homogeneous cohort of women; thus, the findings are less likely to be confounded by factors associated with socioeconomic status". does this means the study population are homogeneous in socioeconomic status? The author should give some data to support this statement.
Are the methods appropriate and well described?  
If not, please specify what is required in your comments to the authors.

Yes

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.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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Please indicate the quality of language in the manuscript:

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