Peer Review Report

Review Report on Joint exposure to various ambient air pollutants might elevate the risks of small for gestational age infants in Wuhan: Evidence from a cross-sectional study

Original Article, Int J Public Health

Reviewer: Wojciech Hanke
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EVALUATION

Q 1 **Please summarize the main findings of the study.**

The present manuscript presents the results of an investigation of the effects of joint exposure to ambient air pollutants during pregnancy on the risk of small for gestational age (SGA) in Wuhan province, China.

Q 2 **Please highlight the limitations and strengths.**

An impressive number of a total of 38,262 gravidas and their offspring were involved in this study. The flow of subjects recruitment was presented (fig 1)
The novel indicated of joint exposure to air pollution (APS) was proposed.
It is a valuable contribution as few studies estimated the joint association of ambient air

Q 3 **Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.**

Major remarks
1) Several potential confounders were selected and adjusted in these models, including age, pregnancy, parity, educational attainment, work status, high-risk factor (medical ?) during pregnancy, and neonatal gender. Although work status was taken into account, the work hazards (chemicals, stress, heavy physical load, etc) were not. Smoking during pregnancy was also not controlled. An explanation for such decisions should be provided.
2) The significant relationship of APS and SGA was only found in the second for the third trimester and the entire pregnancy. The important question is whether any threshold exists, which may indicate the save for pregnant women and their children's air pollution levels.
3) The slightly higher estimates of APS-SGA in women who were first delivered and pregnant were found in the current study. The previous research was rather the opposite on this point. The potential reason for different findings would be discussed.
Minor remarks:
Line 70 The weight of the newborn will be measured within one hour after delivery
line 335 lying-in women term not used “women after delivery”
Line 150 warms season - should „warm”
Line 206 The slightly higher estimates of APS-SGA in women who were first delivered and pregnancy were found in the current study - the statement is too general.

PLEASE COMMENT

Q 4 **Is the title appropriate, concise, attractive?**

Yes

Q 5 Are the keywords appropriate?

yes

Q 6 Is the English language of sufficient quality?

should checked

Q 7 Is the quality of the figures and tables satisfactory?

Yes.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?)

yes

QUALITY ASSESSMENT

Q 9	Originality	
Q 10	Rigor	
Q 11	Significance to the field	
Q 12	Interest to a general audience	
Q 13	Quality of the writing	
Q 14	Overall scientific quality of the study	

REVISION LEVEL

Q 15 Please make a recommendation based on your comments:

Minor revisions.