Reviewer’s report

Title: Birth after preeclamptic pregnancies: association with allergic sensitization and allergic rhinoconjunctivitis in adolescence. A historically matched cohort study.

Version: 2 Date: 29 January 2014

Reviewer: Franca Rusconi

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The paper is much improved, however I still have a request.

Major Compulsory Revisions

1. At point 4 of the previous revision I suggested to perform multivariable analyses without variables that are intermediate (on the pathway) between risk factor (pre-eclampsia) and outcomes. The authors acknowledge this is an important point but “prefer keeping these variables in the analyses”.

In the discussion section and in their reply the authors state that “The variables GA and birthweight z-score may be influenced by other factors than preeclampsia, and therefore possibly not fully intermediate”; this in fact perfectly describes the situation which can give rise to collider bias. Adjustment for the "colliding" variable opens biasing paths between exposure and outcome.

At least the authors should openly acknowledge the possibility of biased results in discussion, as suggested below, and cite one paper dealing with the well known problem of adjusting for intermediate variables:

"In the multivariate analyses we included a set of variables possibly influencing the outcomes. The covariates gestational age, birthweight z-score and caesarean section could be considered as intermediate variables between preeclampsia and the outcomes, but might also be independent risk factors for subsequent allergy and atopic disease and were therefore included as covariates in the analyses. Given the lack of complete ascertainment of causal links, one cannot exclude the possibility of collider bias and therefore biased associations between exposures and outcomes"

(e.g. Robins JM, Greenland S. Identifiability and exchangeability for direct and indirect effects. Epidemiology 1992;3:143-155).

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

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

Declaration of competing interests:
I declare that I have no competing interests'