Author's response to reviews

Title: Prevalence of birth defects and risk-factor analysis from a population-based study in Inner Mongolia

Authors:

Xingguang Zhang (zxg311@126.com)
Li Su (suliyxy@126.com)
Siqintuya Wu (sechtuyua@yahoo.cn)
Xiaojin Hao (haoxiaojin_1@126.com)
Shuyi Guo (guoshuyi327@sina.com)
Kota Suzuki (suzukui@hotmail.com)
Hiroshi Yokomichi (health_un@126.com)
Zentaro Yamagata (houhaikunlu@126.com)

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Author's response to reviews: see over
Dear editors,

According to the advices of two reviewers, we have revised the manuscript point by point. The revision includes three parts: language, tables and content. We are deeply grateful of their help in reading the manuscript and putting forward advice for revision.

Sincerely yours

Xingguang Zhang

Email:zxg311@hotmail.com

The content of the revision as followings:

**Reviewer: Analee Etheredge**

1. Methods. The manuscript is to use Poisson regression for analyses.

2. Discussion. I reselect the age cutoffs (example, under 25 years of age), then analyze the results.

3. The prevalence takes place of terminology ‘incidence’.

4. Methods and table 2. ‘congenital hemangiomas’ takes place of ‘Hemartoma’ and ‘hematomas’.

5. The ‘Equinovarus’ in Table 2 is revised to be ‘Talipes equinovarus’.

6. For the overall prevalence, the denominator is 62544, the numerator is 976. Because of missing nationality data, the total is 62529, and the total of 961 cases is in Table 1.

7. The Poisson regression takes place of the logistic regression in Table 4.
8. The reference has been updated. The report obtains high quality, complete, and population-based information on birth defects as the current study. But the data from Australia includes not only structural abnormality but also functional abnormality which contributes high level.

9. The reference is provided for the statement.

10. Four primary references are added in the text.

11. Background, paragraph 1, sentence 8. The reference is provided, and the statement would be “… less than half of birth defects can’t be attributed to a single factor.”

12. Provided more sampling size and sampling units on detail.

13. Stillbirths refer to the birth of a dead baby, don’t include spontaneous fetal deaths <20 weeks gestational age. Abortions include spontaneous fetal deaths <28 weeks gestational age and induced fetus.

14. The denominator would include stillbirths and abortions, because the malformation fetus might dead before birth.

15. Methods. A child might have multiple malformations, but they were counted as a case.

16. These content isn’t revised according to the suggest.

17. Yes, cases can be classified as syndromic vs. non-syndromic.

18. Methods. Chromosomal anomalies were classified as Down’s syndrome, trisomy 13 syndrome, trisomy 18 syndrome, and so on.
19. The neural tube defect classification was separate into three phenotypes respectively in the results.

20. The results mostly go to table 1.

21. Figure 1 is canceled, The prevalence values be reported in table 2.

22. The first sentence is added.

23. Quote some countries in Asia, but other counties isn’t any particular significance.

24. The 2 studies both suggest the chemical factors in maternal agricultural work are risk to birth defects.

25. There might be other environmental teratogens in the rural compared to the urban locations. We will further study these characteristics.

26. Compared the value with a study, and suggested drinking is a risk factor.

27. The sentence is deleted.

28. Reference 17 is canceled.

29. Consanguinity, family history and ethnicity commonly are related to genetics, but consanguinity was found that it’s risk in this study. We respectively stated these points.

30. After Poisson analyses, we found family history and ethnicity are important. Genetic component and environmental teratogens will be important direction in the next study.

31. Add the some ideas on how this study can be used to advance the field
in Inner Mongolia.

Reviewer: A. J. Agopian

1. We want to find the common risk factors to birth defects in this study.

2. Some exclusions is mentioned among some birth defects.

3. The regression model is changed to Poisson regression. The model include potential risk factors related to birth defects, and these factors can be get in this study.

4. The discussion has be revised.