Reviewer's report

Title: Perinatal Mortality of Pregnancies with Omphalocele: Data from the Chinese National Birth Defects Monitoring Network, 1996-2006

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Reviewer: Russell Kirby

Reviewer's report:

In this manuscript, the authors examine perinatal mortality in fetuses/live births affected by omphalocele during the period 1996-2006. While the paper is interesting, the data are fairly old to be presented in 2014. It would be extremely helpful to readers to learn how representative the data in the Chinese national birth defects monitoring network are, especially as to availability of prenatal diagnosis and the possibility that there is differential selection of affected cases into the registry based on which hospitals are included in the registry.

The manuscript would be much improved by a careful reading by someone who knows the subject matter who has English as a first language. Additionally, the discussion is too long, and could be shortened by use of a table comparing the results of this with other studies in the literature, paying attention to the years for which the data in each are reported.

Some specific suggestions:

On p 5, in discussing ascertainment, what proportion of all births in China are covered by the registry? Are there any aspects to selection of cases based on included hospitals or severity of fetal condition?

On p 6, how are diagnoses validated? Most especially, how are cases of gastroschisis or limb-body-wall defect differentiated from omphalocele?

Also on p 6, in considering variables for analysis, it would be interesting to also include whether the mother was part of the floating population, as well as gravidity and plurality.

On p 7, in the section on data quality, tell the reader something specific as to how this applies to the cases in this study. How many of these cases were validated, for example?

On p 8, explain more clearly why multinomial logistic regression was used. Also on this page, a good place to explain why data are only through September 2006, and perhaps also whether reporting was continuous over the study period, or more cases collected in later years of the study period. Did the prevalence of omphalocele change over the study period?

On p 9, first line, what does 'most prevent in . . .' mean? What is an uptrend or downtrend? The observation of different patterns for LFDR and ENNDR suggests some possible classification bias based on whether a case was considered a live
birth.

Beginning on p 11, the discussion is not well organized. The references to other literature are drawn out and could be more easily summarized, perhaps in .5 pages rather than 2 full pages. Perhaps a table comparing these results to this study would be helpful.

On p 14, the authors could discuss other potential limitations. For example, is this study truly population-based, since it focuses on selected hospitals rather than all deliveries in a region? Is the diagnosis made uniformly across all hospitals in the registry?

Turning to the tables, in Table 1 since the data are presented as percents, a single decimal place is sufficient, while column headers could be spelled out rather than abbreviated. Was any trend over time observed?

In Table 2 or 3, it would be interesting to see if there are differences in mortality by level of perinatal services available at the hospital of birth, as well as by complexity of associated birth defects if any. Table 3 should also show the results for perinatal mortality - and it might be interesting to include gestational age using the fetuses at risk approach.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.