Reviewer's report

Title: Chronic diseases in pregnant women: prevalence and birth outcomes based on the SNiP-study

Version: 2 Date: 2 November 2013

Reviewer: Anne-Frederique Minsart

Reviewer's report:

Dear Editor,

Thank you for asking me to review this interesting paper on chronic diseases and pregnancy. The authors present interesting results. However in my opinion revision needs to be undertaken before the manuscript is considered for publication. I have the following comments to the authors:

First of all, English editing and a careful review of grammar and punctuation is necessary.

Second, I feel uncomfortable with analysing chronic diseases taken as a whole. These conditions have either fertility, prenatal, and/or postnatal repercussion, or no repercussion at all. Not all pregnancies in women with chronic diseases are high-risk pregnancies. We may assume that the aim of the study is to take into account every chronic condition, and to give an accurate overview of the prevalence of chronic diseases on a population basis. However I think that if the second objective is to show the relation between chronic disease and pregnancy complications, then it would be useful analyse data according to the category of disease.

Itemised review:

Introduction

End of the 2nd paragraph:
Addictive disorders: Are they included in your total?
« Chronic intrauterine infection with CMV, HSV, HV or toxoplasmosis »: I don’t agree with this term CMV and toxoplasmosis are not chronic IU infections, first because they are no chronic diseases except in HIV positive mothers eventually, second because the fetus is rarely co-infected. HIV and HSV are chronic infections but rarely have an intrauterine impact. Are they included in your total?

End of the introduction: The following questions..: Point 3 is missing

Sample
« The population includes all pregnant women living in Oostvorpommern ». How these mothers were registered? by attending prenatal visits in the county? What if they lived in the county but were attending another care facility?

Data manipulation
How many women had more than one birth during the study period? Have you checked if the multiple inclusion of these women had an impact on your results?

Infections: what is the definition: all infections (rhinitis, urinary tract, …)?

Acute disease: what is the definition

Apgar score at 5 minutes: cut-off?

pH at birth: cut-off?

Results

Prenatal parameters

« related to a reduced fertility »: this sentence is confusing as the fertility rate has another meaning.

Perinatal parameters

First paragraph: line 8 regarding premature infants: there is a statistically significant difference favouring the healthy mothers (p<0.01) and line 12: p<0.05) what is the difference between these calculations

Second paragraph:

- Newborns of primiparae on average showed …: I would recommend not explaining differences between primiparae and multiparae taken as a whole as it is not the aim of the present study, and it is confusing here.

- Bad prognosis Apgar score: again, what is the definition

I don't understand clearly why some analyses have 1, 2 or 3 degrees of freedom. Perhaps some categories are included while others are not but it is not clearly explained.

Discussion

The terms of the discussion are appropriate but:

Third paragraph:

« Women with chronic diseases are one year older, it might be possible that they have already more income and higher qualification »: From your results I understand that they have lower income (1250 vs 1749)

Sixth paragraph:

Is the difference between multiple births prevalence statistically significant?

Conclusions:

« The perinatal outcome seems to be less favourable for infants of women with chronic diseases «: from your results I understand that infants of women with chronic diseases have better Apgar scores but a higher hospitalisation rate.

Table 1:

« Congenital malformations and conditions originating in the perinatal period »: for the mother or the fetus?

Table 2:
Sociodemographic parameters
The total is not always 100%
Figure 2
Excluded : death : I suppose it means fetal death. Wouldn’t it be interesting to include these fetal deaths in the present analysis as Apgar is part of the study, or at least if the death has occurred during labor.

Figure 3 line 4 if

Figure 4 :
The rate of infections, hemorrhages and acute diseases is very high in all categories (>50%)
Figure 7 :
What is « conspicuous »
The rate of low Apgar scores and high BE seems high.
Figure 8 :
The rate of postnatal hospitalization seems very high in all categories

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

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