Reviewer’s report

Title: A novel classification for evaluating episiotomy practices: application to the Burgundy perinatal network.

Version: 0 Date: 24 Apr 2019

Reviewer: Bertrand Gachon

Reviewer’s report:

Comments to the authors

Thanks to the editorial committee for the opportunity to review this interesting works by Desplanches et al. these authors aims to report a novel classification for evaluating episiotomy practices as the Robson classification has been reported for cesarean sections. The provide a clear, simple and efficient clinical classification which deserve to be diffused. They also report a decrease of the episiotomy rate across the time, which is consistent with the national data. This study also report interesting data, and original French data, about the hypothetic befenit of episiotomy to prevent OASI in case of operative delivery. Nevertheless, the methods should be more detailed especially the judgement criterion and the plan of analysis. Discussion should be more detailed about the evolution of episiotomy rate in different obstetrical situations, especially breech delivery. Finally, the place of episiotomy in the case of operative delivery deserve also a more detailed discussion.

You'll find my detailed comments below.

Detailed comments

Abstract:

- Intro: which rate of episiotomy? (regional, national, international?)
- Variable practices for which outcome? Rate? Indication? Technic?
- Please indicate what is your main endpoint
- Method: Clarify what do you mean by "rates were compared by level" which is a French concept as this paper aims to be published in an international journal
- Since it is a retrospective study, I'm not sure that you can write that you included 81290 pregnant women
- The prevalence of OASIS was higher (and not highest)
- Clarify the last paragraph of the results, you first indicate an absence of difference for OASIs rate according to the use of episiotomy and the you report differences for several groups.

Background:

- Line 4: Since you report a French experience it might be relevant to refer to the last French guidelines published by December 2018
- Lines 4-10: it is difficult to consider an association between an increase risk of OASI when an episiotomy is performed (excepted in case of midline episiotomy). You might better discuss the absence of benefit of episiotomy and especially mediolateral episiotomy to prevent from OASI.
- Line 11-12: this sentence appears wordy
- Line 12-15: this point is quite interesting and deserve to be deeply discussed. As the Robson classification is used as a tool to decrease the cesarean section rate, your classification might be useful to decrease the episiotomy rate.
- So clearly indicate that your main endpoint is to build the classification

Methods:

- Line 33: women and not patient
- Provide a detailed description of the evoked perinatal indicators or just do not talk about it if it is not relevant for this study.
- Line 50: what do you mean by "termination of pregnancy", in utero death?
- Line 56: What about spatulas delivery?
- There are several French private hospitals in which midwives perform vaginal deliveries. You should consider moderating your sentence
- Line 59: prefer the expression operative or instrumental delivery instead of "extraction"
- Line 62: provide more details about the diagnosis of OASI, with a definition of OASI. Is the diagnosis suspected by a midwife systematically confirmed by an obstetrician? What the diagnosis by the residents? These points should be clearly described in the methods and discussed in your discussion
- Lines 87-94: in my opinion this paragraph does not bring essential information to your paper. Consider deleting or summarize it.

- It might be useful to announce clearly your hypothesis then your objectives and finally your judgement criterion in a specific paragraph

- It might be a good point to consider including a paragraph reporting with details your plan of analysis

Results

- Lines 123-125: is this difference statistically significative?

- Lines 126-128: indicate if the difference according to the type of instrument is statistically significative

- The analysis about the evolution of the cesarean section rate is not announced in the methods

- The analysis about the evolution of the instrumental delivery rate is not announced in the methods

- Why not reporting the evolution of the episiotomy rate for the different instruments in case of operative delivery?

- Table 4: why not presenting your results as Odd Ratios?

- What type of episiotomy was performed (mediolateral?). For operative deliveries, episiotomy is performed by an obstetrician whereas for vaginal spontaneous delivery it is done by a midwives. It might be different practices for the technic of episiotomy between these two populations and this should be discussed in your discussion

Discussion

- Lines 195: indicate first that the groups with the highest rates of OASI were the 2 and the 1 then the 4 with percentage

- Lines 198: effectively there is a lack of data reporting data with much more details as you are but there several works reporting the impact of episiotomy in case of operative delivery (DeLeeuw et al.)

- Discuss the absence of change of episiotomy rate across the time whereas there no data suggesting the benefit of episiotomy to prevent from OASI in this indication
- Line 214: why forceps are mainly used in level-one units?
- Line 229: you should refer here to the latest French guidelines published in 2018
- Do you have any explanation for the increase in operative delivery rate?
- For operative deliveries, the team of DeLeeuw et al. Van Bavel et al. suggest a strong benefit of episiotomy to prevent from OASI. The French 2018 guidelines recommend considering the use of episiotomy in case of episiotomy in case of operative delivery. These elements are not present in your discussion. The place of episiotomy in case of operative delivery deserve deeper investigations before concluding to its benefits or absence of benefits. A randomized trail does not appear to be the best study scheme considering the complexity of this interventions (maternal indications, fetal indications, different types of instrument, different types of fetal position etc…) and referring ton ethical considerations of randomization in an emergency context. Data as yours support the hypothetic benefit of episiotomy in case of operative delivery especially in case of forceps delivery. These points, in my opinion, deserve a more detailed discussion.
- Line 270: why not discussing the data about the 2016 ENP instead of the 2010 one
- Line 272: once again, please refer to the latest French guidelines

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:
Acceptable

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