Reviewer’s report

Title: The MOVE-trial: Monocryl® vs. Vicryl Rapide™ for skin repair in mediolateral Episiotomies: a randomized controlled trial.

Version: 0 Date: 14 Mar 2017

Reviewer: Jerry Lowder

Reviewer's report:

The authors conducted a randomized controlled trial of suture types (Monocryl® vs Vicryl Rapide™) for repair of uncomplicated episiotomy after vaginal delivery. They met their goal sample size of 250 patients based on a 90% power to detect a difference in pain in the sitting position 10 days after vaginal delivery. They found no difference in Visual Analogue Scale (VAS) scores at 10 days or the other time points evaluated when they controlled for the difference in ventouse deliveries, which was found to be significantly higher in the Vicryl Rapide™ group after randomization. The secondary outcome of self-reported wound dehiscence was significantly higher in the Vicryl Rapide group at all time points, but the remainder of the secondary outcomes evaluated were not significantly different between groups. The authors used questionnaire data for collection of their primary and secondary outcomes. Overall, this appears to have been a well-conducted study, which addresses a critical question in obstetric laceration and episiotomy repair. As the authors mention, there is limited high-quality data to favor monofilament or multifilament suture for this indication, thus an RCT on this topic is highly relevant. The choice of primary outcome and methods to measure primary and secondary outcomes leaves some unanswered questions at the conclusion of this study. Additionally, questionnaire data is prone to loss-to-follow-up, which was significant in this study. The subgroup analysis for patients who had ventouse delivery and those lost-to-follow-up compared to those with questionnaire data was a valuable addition to the study and strengthens the findings reported here.

Specific Comments:

1. Since all of the outcome measures are based on patient self-report, it would be helpful to include the questionnaires used to elicit the answers in the supplemental material.

2. Please explain the rationale behind use of self-reported outcomes, particularly for the secondary outcomes of infection, dehiscence, and need for suture removal, which should be available in medical record data.

3. The repair technique is well-described, and the use of a standardized repair protocol is a strength of this study, however, the protocol involves use of Vicryl Rapide™ for a
significant portion of the episiotomy repair in both groups. Was this a consideration in the
development of this repair protocol? If suture hydrolysis contributes to pain, the inclusion of
this suture type in both study arms may have obscured the findings.

Abstract:
1. The conclusions reported in the abstract merely restate the results section. Please modify to
report the conclusions drawn from these results.

Background:
1. Lines 71-73: this paragraph, which describes the properties of Vicryl Rapide™, should
include a citation.
2. Line 76: this sentence, beginning with 'Both materials are frequently…' appears out of place.
   It would be more appropriate to precede line 67 where the authors begin their discussion of
   the individual properties of the 2 sutures.
3. Lines 74-77: Would recommend rewording. "Until now, few studies…" This wording
   suggests that more studies are about to released when in fact 1 study is be added to the
   literature. Maybe, "To date, few… [15]. I would combine the 2 sentences. "To date, few
   RCTs comparing Monocryl and Vicryl R have been performed and no trials have looked
   specifically at use of both of these materials for skin closure in episiotomies [15]."

Methods:
1. Lines 85-87: These 2 sentences sound more like results than methods. Consider phrasing
   like, "On average, this centre provides care for almost 2000 medium and high-risk deliveries
   per year." AND "The population attending this hospital is known to have/typically of a wide
   socioeconomic and ethnical range."
2. Lines 92-92: This is a result and should be presented there not in the Methods.
3. Line 93: This is a Result and should be listed in the Results section, not in the Methods.
4. Lines 97-103: Great that Inclusion and Exclusion criteria are listed however format is odd. I
   would use prose and say "Inclusion criteria were defined as…” or "Our study inclusion
   criteria were defined as…” instead of. "Inclusion criteria:…..". Otherwise, place them in a
   table if you want to list them.
5. Please explain why a 1-point difference on the VAS was chosen as the significant difference. Has a 1-point difference in perineal pain been shown to be clinically significant? Is there a minimally important difference (MID) for this measure for perineal pain?

Results:
1. Table 2: No need to include the 'Non-Caucasian' line as this represents all participants not included in the line above. It does not add information to the table beyond what is already presented. If kept in table, please add p-value.

2. Line 178: results presented in the abstract (line 42), discussion, and Table 4 show less skin dehiscence with Monocryl® compared to Vicryl Rapide™, however this line says the opposite. Please correct.

3. Please clarify 'analgesic use'. Is this patients using any analgesia or a certain threshold amount?

4. Line 188-189: the first two sentences in this paragraph essentially say the same thing. The first sentence could be removed without losing any meaning.

5. Line 177-179 and 188-192: You describe dehiscence as a result but this was not described/defined in the Methods section as variable to be collected nor how it was going to be collected.

Discussion:
1. Line 306: the report that pain scores did not correlate with analgesic use is an interesting finding, but it was not presented in the results section. This should be presented in the results section with the appropriate correlation coefficient prior to discussion within the limitations.

2. Line 317-319: while the finding of increased self-reported dehiscence in the Vicryl Rapide group is an interesting one, it should be presented in the context of the limitations of the measurement. This sentence seems to overstate the finding in the study, which is subject to significant recall bias given the self-reported nature of the outcome.

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

No
**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.

No

**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 am able to assess the statistics

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

Acceptable

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Please complete a declaration of competing interests, considering the following questions:

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