Reviewer's report

Title: Adding dexmedetomidine to morphine-based analgesia reduces early postoperative nausea in patients undergoing gynecological laparoscopic surgery: A randomized controlled trial

Version: 2 Date: 03 Dec 2019

Reviewer: Bhiken Ishwarlal Naik

Reviewer's report:

Thank you to the authors for the submission 'Adding dexmedetomidine to morphine-based analgesia reduces early postoperative nausea in patients undergoing gynecological laparoscopic surgery: A randomized controlled trial' to BMC Anesthesiology.

The authors have a priori registered the trial with Chictr.org and I have personally reviewed the original submission

Institutional review board approval was obtained.

CONSORT guidelines were followed.

The study is a prospective, randomized double-blind study investigating the impact of dexmedetomidine on PONV following laparoscopic gynecological surgery. The study investigates an important question and is well structured and conducted. I have some major and minor comments that can improve this manuscript.

Major concerns

1. Can the authors explain why they chose such a large effect size (50% reduction in the incidence of PONV). This effect size has not been reproduced consistently in other studies. What would the sample size be if you chose a smaller effect size? Are you running the risk of a type II error with such a large effect size and smaller sample?

2. What was the rationale for the bolus dose at the end of surgery? You explain in the Discussion that this was likely the reason for the beneficial effects seen in the first 2 hours, but you provide no cogent reason why this bolus was performed.

Minor concerns

1. Page 4, ln 8: change to 'first 24 hours postoperatively'

2. Page 5, ln 1-2: please re-phrase this sentence. Currently does not make sense.
3. Page 6, ln 39: change comma to 'coma'

4. Page 6, ln 41: remove the extra &gt;

5. Page 8, ln 7-8: add mmHg for the CO2 partial pressure for the US reader

6. Page 9, ln 12: was tropisteron the only ant-emetic given. What happened to patients who still had PONV after this agent?

7. Page 9, ln 26-31: There is a difference between a visual analogue scale and a numerical rating scale. You have used a numerical rating scale for this study. Please change to NRS and be consistent throughout the manuscript

8. Page 12, ln 2: add the word 'who' after 'patients'


10. Page 16, ln 7: change patiens to patients

11. In table 1 is the Risk score for PONV the Apfel score? If it is, please list it as that.

**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 am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:
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No conflicts

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