Reviewer’s report

Title: Comparative study of ultrasound-guided paravertebral block versus intravenous tramadol for postoperative pain control in percutaneous nephrolithotomy

Version: 0 Date: 21 Nov 2017

Reviewer: Canan Tulay Isil

Reviewer’s report:

Dear Authors,

I enjoyed reading your perfectly structured manuscript. I agree, that paravertebral block can be used for postoperative analgesia in different kinds of operations and that it is superior to iv analgesia.

However, I think, that some points need to be improved.

1. mgkg-1 should be corrected as mg/kg.

2. VAS confuses a bit, you mentioned a scale from 0-100, but all your data is from 0-10.

3. Anesthesia times are not statistically different, and also surgery times are similar. Did you measure time necessary to do the paravertebral block? How can your results end with an operation time of 87.0±36.3 min and an anesthesia duration of 94.8±36.7 min when you did a paravertebral block for 3 levels? Were all blocks performed by the same anesthesiologist? Please explain.

4. Did you ask the surgeons for their satisfaction? Maybe you could insert a comment or a result about that.

5. How much opioids did you use during anesthesia, did total fentanyl consumption differ?

6. What was your rescue analgesic additional to tramadol? Does your Institution use routine NSAI for multimodal analgesia?

7. "The PCA doses of tramadol consisted of a bolus dose of 0.1 mgkg-1 every 20 minutes without background infusion." Do you mean there was a lock of 20 min or did both groups receive tramadol every 20 min? Please explain in the Methods section. Since the tramadol doses differ related to the patients weight, you should include data about weight, BMI. Tramadol consumption should be expressed as  x ± SD.

8. You wrote in the Discussions "However, we did not find that PVBs decrease these side effects, probably due to the small sample size of the study." as a comment to PONV. Did you observe PONV? You wrote, that you did not see any difference between the Groups.
You should add a table containing the incidences of the complications (Pneumothorax, postoperative atelectasis, Blood transfusions, ...) and undesired side effects (PONV, decrease in blood pressure, ...).

9. You wrote in the Background "However, nephrostomy tubes causing postoperative pain and prolonged hospitalization can cause Patient dissatisfaction"

How long was hospital stay? How was patients satisfaction? Please add a paragraph into your discussion.

10. Please discuss reference 6 also with the results of study 6. What did the authors find, what was different from yur findings? It is not very clear.

11. You could also add a knowledge about how much in % did paravertebral block reduce Tramadol consumption compared to no regional analgesia into your discussion.

12. Please add a sentence about your hemodynamical findings, if possible perioperative and postoperative, did you observe decrease in blood pressure measurements, were the patients diagnosed on Hypertension stable?

13. Please improve your conclusion sentence, because paravertebral block is understood to provide better analgesia as a single method compared to iv Tramadol, which is true; but you have to consider, that you have also used iv Tramadol in the paravertebral group.

**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
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Please indicate the quality of language in the manuscript:

Acceptable

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