Reviewer’s report

Title: Effect of single-dose dexmedetomidine on postoperative recovery after ambulatory ureteroscopy and ureteric stenting: a double blind randomized controlled study

Version: 1 Date: 06 Nov 2017

Reviewer: Ecaterina Scarlatescu

Reviewer's report:

The authors conducted a single center double blind randomized controlled study aiming to evaluate the effect of a single pre-induction dose of dexmedetomidine on anaesthetic requirements, postoperative pain and clinical recovery after ambulatory ureteroscopy and ureteric stenting under general anaesthesia. The results indicated the use of dexmedetomidine was a useful adjuvant in reducing MAC and postoperative pain (at 1hr and POD 1-3), and facilitated faster return to daily activities by 48hr.

The problem raised in this paper is of interest for everybody involved in perioperative care of surgical ambulatory patients. Thanks for giving me the opportunity to review this work. Please find below some observation and suggestions in order to improve your paper.

# Revisions:

ABSTRACT:

* I would kindly suggest to rephrase the first sentence from the Methods "Sixty patients were randomised to receive IV dexmedetomidine 0.5 mcg.kg-1 (GroupDEX, n=30) or IV saline (Group P, n=30) maintained with Sevoflurane: oxygen: air, titrated to BIS 40-60". I would suggest to divide in 2 sentences, for example the second could start with something like: "General anesthesia was maintained with Sevoflurane…"

INTRODUCTION:

* Regarding the first sentence: in my opinion this statement is too general, as the performance of ambulatory procedures depends on the type of surgery, the setting and the patient; I would suggest some modifications.

* Page 5, first row: "we aimed to evaluate the efficacy of a single dose ..., and assess…"; This is confusing, as the endpoint of efficacy evaluation stated are not mentioned. Only the second part of the sentence is clear, because it is mentioned exactly what is assessed. I would suggest refrasing.
METHODS:

* Not only for this section: please consider using the same abbreviation for the unit of measurement of the iv dexmedetomidine dose, as we find it in the abstract as mcg/kg-1 and later on as micrograms or mcg/kg-1

* Please specify if testing for normality was performed and how

RESULTS:

* As Figure 2 reflects the value of a parameter described by mean and SD, please consider adding SD error bars to the chart

* As the normality testing is not specified there might be confusion regarding the values reported for some parameters. For example, the VAS which has values ranging from 0 to 10, probably has a not normal distribution; if this is the case, the median should be reported as a measure of central tendency.

* In the legend of Figure 3, please consider to modify from: "Sistolic/Diastolic blood pressure of Dexmedetomidine/ Placebo" to "Sistolic/Diastolic blood pressure of patients in Dexmedetomidine or Placebo Group"

* In the Table 1 it is mentioned: "Values are mean (SD), numbers of patients (n) or proportions (%)". Actually, in this table there are no percentages; please address.

* Regarding Table 3: please specify the statistical test used for obtaining the p value reported

* I would suggest some comments regarding the results of the pain scores for day 4 and 5, even if not statistically significant

DISCUSSION:

* Please consider removing the superscript when referring to alpha receptors

* I would suggest to the authors to reduce and consolidate the discussion section. I would suggest to remove or at least to shorten paragraph 2 from page 11
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.

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 recommend additional statistical review

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

Needs some language corrections before being published

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

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal