Reviewer’s report

Title: Doxapram alleviates low S p O2 induced by the combination of propofol and fentanyl during painless gastrointestinal endoscopy

Version: 0 Date: 09 May 2019

Reviewer: RaikoBlondonnet

Reviewer's report:

The submitted manuscript by Xin and colleagues shows that the use of Doxapram prevents respiratory depression induced by anesthesia in patients undergoing a gastrointestinal endoscopy.

Whereas the era of the topic seems interesting, i think the evidence to support this conclusion needs additional informations in order to improve the manuscript.

Major revisions

C1: I think the manuscript should be proofread very carefully by the authors in order to improve the readability. Thus, some sentences are in the wrong sections that its will be move.

C2: Could the authors explain the specific inclusion criteria of age (i.e., between 26 and 68 years) ? May be they would say "all patients > 18 years old" ? If it is only the question of majority, the sentence "between 26 and 68 years" could be move in the section results.

C3: Could the authors better explain the protocol ? Indeed they write in the methods that oxygen was delivered at 3L/min. Was the flow rate of oxygen constant ? Or before to use face mask/jaw lifting or ventilation, they increased the flow rate of oxygen. If the flow rate of oxygen was firstly increase, the authors should describe the SpO2 in function of the oxygen. The authors should use the SpO2/FiO2 ratio. This important point should be clarified in the sections methods, results and discussion.

C4: Did the authors have monitored postoperative pulmonary complications for the patients ? If not, this point should be add as a limit.

C5: Did the authors have measured the time in PACU for each patient ? Indeed this point could be interesting, especially if Doxapram could decrease the recovery time in PACU. This point should be add in the discussion;

C6: In order to improve the readability of the Figure 1, the author should be zoom the top of the 3 graphs. Thus the large ladder of the boxes hind the reader to see any difference between the groups. Furthermore the authors should explain if the boxes are with standard deviation, SEM, … and they should improve the legend of the figure.
C7: Did the authors assess the depth of anesthesia? The depth of anesthesia could partly explain the respiratory depression.

C8: The statistics (i.e., first part of calculus of effective and second part of statistic test) in the section methods should be gathered

C9: In the section discussion, the paragraph of the effects of Doxapram on HR and MAP seems overinterpreted. The authors should nuance their meaning.

C10: The authors need add a paragraph with limits in the discussion.

C11: Line 103 The authors wrote "a third anesthesia nurse" but they did not explain where she was? And where were the one and second nurse? Could the authors clarify this point.

Minor technical comment

C11: Could the author clearly explain what is a "grade 3" hospital?

C12: Line 114 0.5mg/kg of what? We suppose that s propofol but the authors should clarify.

C13: Line 97 Miss space between about and sufentanil

C14: Line 121 Miss space between oxygen and saturation

C15 Line 195 Miss space between doxapram and directly

C16 Ligne 200 Miss space between we and speculate

C17 : Table 1 Miss space between BMI and (kg.m)

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
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Needs some language corrections before being published

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