Reviewer's report

Title: The Effect of Sedation and/or Analgesia as Rescue Treatment during Noninvasive Positive Pressure Ventilation in the Patients with Interface Intolerance after Extubation

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Reviewer: Eusebi Chiner

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PULM-D-16-00483. The Effect of Sedation and/or Analgesia as Rescue Treatment during Noninvasive Positive Pressure Ventilation in the Patients with Interface Intolerance after Extubation

The authors studied retrospectively patients with interface intolerance who received noninvasive positive pressure ventilation (NIPPV) after extubation with a primary outcome as rate of NIPPV failure (defined as need for reintubation and mechanical ventilation) and a second outcomes included in hospital mortality and length of ICU stay after extubation. The study conclude that using sedation and/or analgesia in patients with interface intolerance after extubation during NIPPV may offer advantages including in decrease of both the rate of NIPPV failure, hospital mortality and ICU LOS for these patients.

A 2-year period in 7 hospitals in China with the inclusion of 80 patients and 41 finally analysed and compared seems a very poor number of patients to study and to draw conclusions SD not included in some outcomes such as age or hospital stay

We do not know if to compare groups, the patients were matched by age, BMI, gender, etc. This would have been more correct

The protocol for administration of analgesia or sedation is not shown

The authors affirmed that in the unadjusted analysis, sedation and/or analgesia was significant associated with failure of NIPPV but after adjusting for sex before extubation that sedation and/or analgesia reduced the rate of NIPPV failure. I do not understand how or why this adjustment was made. The OR from the comparisons are insignificant from my point of view

There are quite number of grammatical errors in the manuscript

The discussion is long, speculative and difficult to read. The authors speculate about patient-ventilator asynchrony but do not show any monitoring data in this sense
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.

Unable to assess

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

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