Author’s response to reviews

Title: Negative pressure pulmonary edema: a case report

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Author’s response to reviews:

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D John Doyle, MD PhD,
Handling Editor,

Dear D John Doyle, MD PhD,

Firstly, we appreciate you and editorial members’ valuable suggestions on our manuscript: BANE-D-19-00062: Negative pressure pulmonary edema: a case report. Based on your comments and suggestions, we have revised carefully this manuscript and listed responses to the reviewer’s comments one to one as follows:

1. All revision comments of editors and reviewers have been followed. The spellings have been again rechecked. Furthermore, some mistakes in the grammar and typos, and missnomers have been corrected. All changes to the manuscript are indicated in the text using track change.

2. The responses to Reviewer 1’s (Ebru Biricik, M.D.) Comments:

(1) Question 1: Obesity, short neck and Mallampati III indicate that difficult airway. So I think venous access with premedication (orally or intramuscular sedation) could be a better choice for this children. Why did not the authors use supraglottic airway devices?

Response: Thank you for this good question. Actually we think venous induction is the best choice too, however it is difficult to establish venous access due to this patient was very obese and irritable. Meanwhile intramuscular sedation is impossible because her struggling might cause additional injure or needle broken. As to orally sedation, although it is painless, it is difficult to choose an appropriate dose. If less, it is unable to ensure the smooth procedure of establishing venous access and induction. If more, it inhibit respiration. And it will take a long time to work. So we choose inhalation induction while keeping her spontaneous breathe, this method has be considered to be more safe and quickly. Because ventilation and SPO2% could be sustained during induction, and venous access was established later, so we did not use supraglottic airway
devices. However, our opinion is as same as yours, supraglottic airway devices is the best choice for the situation. If supraglottic airway devices were used, NPPE might be avoided. It is a lesson for this case, we should not hesitate to use supraglottic airway devices.

(2) Question 2: The authors write as 'However the present case was without obvious upper airway obstruction, so we suspected there were other culprits combined with the mild upper airway obstruction to produce the negative pressure pulmonary edema' in abstract section. It doesn't reflect to the truth. Because, they indicate to difficult airway in the manuscript. I think it should be change.

Response: Thank you very much for your constructive comments. In the present case, upper airway obstruction combined with other pathophysiological risks to make the girl more vulnerable to pulmonary edema. So we rewrote the background part in abstract and text section.

(3) Question 3: Does the patient have obstructive sleep apnea (OSA) diagnosis? What does the polysomnography results? If the authors did not obtain any tests about OSA they should state that possibility of OSA.

Response: Thank you very much for your constructive suggestion. The girl had not taken polysomnography test. So we just inferred OSA based on physical examination and apnea during sleep. We used “possibility of OSA” to substitute “OSA” in revised article.

(4) Question 4: Why did not the patient treated with cortisol preoperatively?

Response: Thank you very much for your good question. The girl was admitted on 29th March, most results of blood were reported in time except the test of cortisol and ACTH, which were reported on 3rd April. So routine cortisol supplement did not start preoperatively. We stated it in revised part of case presentation.

(5) Question 5: The authors said 'The chest computer tomography (CT) on 30th March indicated clear lung field, and her preoperative chest examination was normal' in method section but they indicated that 'When the chest CT before operation was reviewed, especially compared to the CT after ICU therapy, it looked as if effusion of both lung fields was more than normal level' in discussion section. It's confusing.

Response: Thank you very much for your good question. We are sorry not to describe this issue clearly in original paper. The result of CT on 30th March was reported normal by Department of radiology. In fact, we thought there was slight effusion on both lung fields preoperatively. When compared with images of CT after 48h intensive care, pulmonary effusion of 30th CT images was more obvious. But different photographic condition of twice CT images might produce different interpretation of CT images.
(6) Question 6: The discussion section should base on vulnerability of the negative pressure pulmonary edema in children with hippocampus-pituitary-adrenal insufficiency.

Response: Thank you very much for your constructive suggestion. We revised the discussion section.

3. The responses to Reviewer 2’s (Todd Everett Jones, M.D.) Comments:

(1) Question 1: There is need for extensive review and editing of this paper by a native English speaker. There are multiple inappropriate uses of "the", need for placement and removal of articles such as "a", and "body" examination may need to be changed to physical examination. Also when the authors refer to "saddle area" there is no indication of which part of the body the authors are referencing. There is need to indicate appropriate anatomy as to make the paper more understandable by other physicians.

As to the conclusions drawn; I am not quite sure that there is good evidence to support the patient's mild respiratory issues (which I assume is their OSA) as being the primary culprit behind the NPPE. Is it not just as likely that the patient experienced laryngospasm during inhaled induction (possibly due to inhaled induction in which secretions could have hit the cords)? If this is not a possibility, I would like to see the authors refute this possibility.

Response: Thank you very much for your suggestions and good question. We have checked and revised our paper. Furthermore, we have asked a professional English editing service according to your advice. “body examination” is changed to “physical examination”. At the same time, we asked a professional neurosurgery about correct anatomic site, so “saddle area” is changed to “sellar region”. Henceforth, we should pay more attention to English writing.

As your comment, laryngospasm is usual risk of NPPE. But it is often for adult during intubation and/or extubation. While laryngospasm, stridor may occur, because partial or complete closure of vocal cords. For this case, there was no acute stridor. From beginning of inhalation induction to intubation finishing, the procedure was about twenty minutes, we did not give any treatment against laryngospasm. If it occurred, the result would be much more serious than NPPE. The more important is that we could not find any secretion in this patient’s mouth and on her vocal cords, because her supraglottic structure was easily exposed by laryngoscope. So we eliminate the possibility of laryngospasm.

4. Our revised paper is written using a word processing program and has been saved in the format of MS Word for Windows. All supplemental and revised contents have been interposed using track-change. Because some contents have been supplemented due to revision requirements, word number of text in the revised paper has been increased from 1753 in original paper to 2133 in the revised paper. Because of revision requirements, two new references (Ref. 9 and 17) have been added in revised paper. Thus, there are 17 references in revised paper. However, there are still 4 figures in revised paper.
5. We are still very pleased to submit this revised manuscript to BMC Anesthesiology. We solemnly declare that (1) each author contributes to the design and conduct of this work; (2) the manuscript has been written, read, and approved by all authors; (3) all authors attest to the validity and legitimacy of data, and agree to the modifications made on this new revision; (4) this manuscript has not been published, either in whole or in part, and is not under consideration for publication elsewhere; and (5) there is no financial support and potential conflicts of interest for the work. In consideration of BMC Anesthesiology taking action in reviewing and editing our submission, all authors undersigned hereby transfers, assigns or otherwise conveys all copyright ownership to the editorial board of BMC Anesthesiology if this manuscript is published. If our manuscript is published in the journal, we agree that the reviewer reports and your responses to the reviewers will be published alongside the article.

6. We do not know whether this new revised manuscript will achieve the sufficient level for publication in BMC Anesthesiology. Should you require any further revision and information with your warm heart to inform us at your convenience, we shall be happy to do it. Thank you and looking forward to receiving an early favorable reply.

Sincerely,

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