

Response to Editors and Reviewers

Dear Editors and Reviewers,

Thank you for your letter and for the reviewers' comments concerning our manuscript entitled "*Perianesthesia emergency repair of a cut endotracheal tube inflating tube : A case report(WJCC-72391)*". Those comments are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to us researches. We have studied your comments seriously and made careful corrections which we hope meet with approval. The main corrections in the paper and the responses to reviewer's comments are listed as following:

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RESPONSE to REVIEWER #1

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Reviewer(s)' Comments to Author:

Reviewer #1:

Specific Comments to Authors: The study is aimed to report an emergency repair of a cut endotracheal tube inflating cuff. The title is "Perianesthesia emergency repair of a cut endotracheal tube inflating cuff:A case report".

1. This is a case report.

Dear reviewer, Thank you very much for your valuable suggestions. I have changed the title to "Perianesthesia emergency repair of a cut endotracheal tube's inflatable tube: A case report".

Thanks again,

2. Several factors influence the outcome of the management. Please discuss these.

Dear reviewer,

Thank you very much for your valuable suggestions. There are some limitations to this method. First, the inner diameter of the inflatable cuff on an

endotracheal tube is not standardized; thus, different diameters of venous catheters may be needed. Second, this method cannot be used when the rupture of the cuff tube is deep and cannot be directly visualized. Again, given that the tension of the repaired inflatable tube will not be firm, the use of transparent tape to fix the fracture is recommended. The final patch changed the appearance of the pilot balloon assembly.

Thanks again,

3. Please add more details of the complications of this technique.

Dear reviewer,

Thank you very much for your valuable suggestions. Given that the technique is used in intensive care units or during anesthesia, needle wound complications may occur in uncooperative patients undergoing repair work in the presence of agitation. Thus, the patient may need to be appeased, and in severe cases, drugs may be needed for sedation.

Thanks again,

4. Please review the literature and add more details in the discussion section.

Dear reviewer,

Thanks for your helpful advice. **Sprung et al.** the needle core of the scalp needle is obtained to meet the pressure in the cuff, with the potential complications being consistent with the approach described by Yoo et al[1]. **Whiteside et al.** used a syringe to replenish the cuff gas and a vascular clamp to clamp the inflatable tube to maintain cuff pressure[2]. **Hao et al** reported a case latest, described the use of an angio-catheter to connect a ruptured endotracheal tube's inflatable tube while also installing a clave on the angio-catheter to maintain cuff pressure. While the method is satisfactory, it requires the use of a clave[3].

1. **Sprung J**, Bourke DL, Thomas P, Harrison C. Clever cure for an endotracheal tube cuff leak. *Anesthesiology* 1994; 81: 790-791 [PMID: 8092537]

DOI: 10.1097/00000542-199409000-00052]

2. **Whitesides LM**, Exler AS. Intraoperative damage and correction of pilot balloon during orthognathic surgery. *Anesth Prog* 1997; 44: 38-39 [PMID: 9481980]

3. **Hao D, Johnson JJ**, Patel SS, Liu CA. Technique to manage intraoperative cuff leak from damaged endotracheal tube pilot balloon. *Int J Oral Maxillofac Surg* 2021; 50: 1588-1590 [PMID: 33795178 DOI: 10.1016/j.ijom.2021.02.007]

Thanks again,

5. What is the new knowledge of the article?

Dear reviewer,

Thank you very much for your valuable suggestions. The method described herein to address such an emergency involving the inflatable tube was simple, fast, and reliable. This type of emergency requires prompt response and intervention to ensure patient safety. In the current case, we just needed an IV line to quickly repair and re-inflate the inflatable tube, through which we were able to promptly address the patient's emergency. Given that the injection end of the intravenous catheter comes with a safety-sealed valve plug, the tracheal tube cuff does not leak and can directly and accurately measure the pressure inside the cuff without the need to connect a three-way valve.

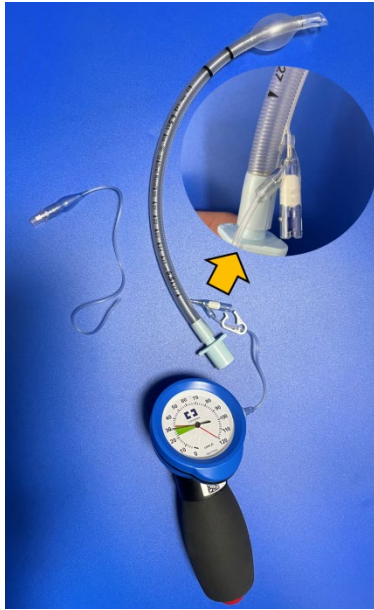
Thanks again,

6. Please recommend to the readers "How to apply this knowledge?".

Dear reviewer,

Thank you very much for your valuable suggestions. Intraoperative damage to the inflatable tube has rarely been reported in the literature. In the current case, the accidental damage to the inflatable tube during the surgical procedure could have seriously threatened the life and safety of our patient. Although the standard treatment involves replacing the tracheal tube

immediately after all secretions have been sucked out, reintubation may lead to complications, including asphyxia, aspiration pneumonia, and even death. Additionally, intraoperative exchange of the endotracheal tube cuff may be difficult or impractical for patients placed in the prone position. Therefore, the health care provider must be aware of the risk of damaging the endotracheal tube's inflatable tube during surgery and take emergency measures if it happens. In cases where the endotracheal tube's inflatable tube is damaged, the technique described herein has been shown to maintain or increase pressure on the tracheal tube cuff. If the damage is located at the valve, this technique can be taken equally by cutting off the pilot balloon, and connecting the inflatable pipe to avoid changing the pipe. Moreover, if the root of the inflatable tube is completely detached, the intravenous catheter described herein that can completely replace the inflatable tube and pilot balloon, can be used for rapid and effective repair to maintain endotracheal tube function (Figure 3). In addition, the intravenous catheter we used is easily obtainable in the operating room and intensive care unit and requires no three-way valve, thereby safely and quickly preventing potential airway complications. To avoid such incidents, medical staff need to take some precautions and protective measures, such as appropriately taping the pilot balloon assembly to the endotracheal tube wall to avoid cutting the inflatable tube during paramedical operations (Figure 4).



(Figure 3).



(Figure 4).

Thanks again,

RESPONSE to REVIEWER #2

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Reviewer #2:

Specific Comments to Authors: Very well described very rare event which could end with patient death. As author stated accidentally cutting of the cuff on the endotracheal tube during the operation posed a significant threat to the patient's life. Intraoperative damage of the inflating cuff of the endotracheal tube has been rarely reported in the literature. It is very important to bring to consciousness seriousness of situation like this so I think readers will value this article in a way of help in everyday OR situations.

Dear reviewer,

Thanks for your great approval!

Thanks again,

RESPONSE to REVIEWER #3

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Reviewer #3:

Specific Comments to Authors: Overall, the authors present a very interesting case of cuff leak due to inadvertent damage to the Endotracheal tube cuff leading to significant leak and how the anesthesia team used innovative ideas to improvise and fix the leak preventing re-intubation and other complications. While the case is novel and warrants publication, the English language and Grammar requires significant polishing and correction. In "case presentation" the following line needs to be corrected, ". Fifteen minutes into the operation, the anesthesia machine suddenly emitted a low voltage alarm" Instead of low-voltage alarm, would recommend saying, anesthesia machine alarm suggesting a low tidal volume. While the images supplement the case report nicely, it would be nice to show an illustration as to where the damage to the endotracheal tube happened as it appears it was the inflating tube that was damaged rather than the cuff itself.

Dear reviewer,

Thank you very much for your valuable suggestions. I've made changes, "Anesthesia was maintained through propofol, remifentanyl, cisatracurium, and inhaled sevoflurane. Around 15 min into the surgery, the anesthesia machine alarm went off, suggesting low tidal volume. The surgery was stopped, and manual positive pressure ventilation was delivered. "

Thanks again