

Dear editors and reviewers:

Re: Manuscript NO.: 78907, Case Report, and Title: "Formation of Granulation Tissue on Bilateral Vocal Cords after Double-lumen Endotracheal Intubation: A case report."

Thank you for your letter and the reviewers' comments concerning our manuscript. Those comments are very valuable and helpful. We have read through comments carefully and made corrections accordingly. Revisions in the text are shown using red highlight for additions, and strike through text for deletions. The responses to the reviewer's comments are marked in red and presented following this letter.

We would love to thank you for allowing us to resubmit a revised copy of the manuscript and we highly appreciate your time and consideration.

Sincerely,

Ting Li and Xiaojuan Xiong

Reviewer #1:

Scientific Quality: Grade B (Very good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Accept (General priority)

Specific Comments to Authors: -

Reviewer #2:

Scientific Quality: Grade C (Good)

Language Quality: Grade A (Priority publishing)

Conclusion: Accept (General priority)

Specific Comments to Authors: It is possibly a first case report of granulation tissue development and upper airway obstruction from the double lumen endotracheal tube, but the underlying pathophysiology remains the same as single lumen tube so I am not sure if it adds a lot to the existing knowledge on this subject.

Response: We deeply appreciate the reviewer's suggestions. Single lumen tube and double lumen endotracheal tube have the same pathophysiology of formation of granulation tissue. The mechanism of granuloma formation caused by endotracheal tube: first, laryngeal injury caused by direct contact or friction of the endotracheal tube may lead to mucosal ulceration and inflammation<sup>[1]</sup>; and then, the high pressure of the tracheal tube cuff exceeds capillary pressure, leading to local loss of blood flow, regional ischemia, or necrosis, promoting and stimulating fibrinolysis 错误:未找到引用源。.

However, DLT is stiffer and has a larger outer diameter than single-lumen tube, so more airway damage has been reported with DLT intubation 错误:未找到引用源。. Gelbard et al. concluded that the passage of oversized endotracheal tubes through the commonly smaller female trachea may contribute to tracheal injury and subsequent stenosis<sup>[4]</sup>. At a given depth, the cuff fitted more tightly in the trachea, closer to the vocal cords, and was associated with mucosal tracheal compression over a longer segment <sup>[5]</sup>. As a result, the DLT main tracheal cuff was probably positioned at the vocal cords. Once inflated, the cuff could have easily compressed the vocal cords. Therefore, we should be more cautious when using double lumen endotracheal intubation.

## References:

- [1]. **Karkos PD**, George M, Van Der Veen J, Atkinson H, Dwivedi RC, Kim D, Repanos C. Vocal process granulomas: a systematic review of treatment. *Ann Otol Rhinol Laryngol*. 2014 May;123(5):314-20. doi: 10.1177/0003489414525921. Epub 2014 Mar 17. PMID: 24642585.
- [2]. **Nikolovski N**, Kopacheva-Barsova G, Pejkovska A. Laryngotracheal Stenosis: A Retrospective Analysis of Their Aetiology, Diagnose and Treatment. *Open Access Maced J Med Sci*. 2019 May 26;7(10):1649-1656. doi: 10.3889/oamjms.2019.339. PMID: 31210816; PMCID: PMC6560284.
- [3]. **Seo JH**, Cho CW, Hong DM, Jeon Y, Bahk JH. The effects of thermal softening of double-lumen endobronchial tubes on postoperative sore

throat, hoarseness and vocal cord injuries: a prospective double-blind randomized trial. Br J Anaesth. 2016 Feb;116(2):282-8. doi: 10.1093/bja/aev414. PMID: 26787799.

[4]. **Gelbard A**, Francis DO, Sandulache VC, Simmons JC, Donovan DT, Ongkasuwan J. Causes and consequences of adult laryngotracheal stenosis. Laryngoscope. 2015 May;125(5):1137-43. doi: 10.1002/lary.24956. Epub 2014 Oct 7. PMID: 25290987; PMCID: PMC4562418.

[5]. **Karmali S**, Rose P. Tracheal tube size in adults undergoing elective surgery - a narrative review. Anaesthesia. 2020 Nov;75(11):1529-1539. doi: 10.1111/anae.15041. Epub 2020 May 16. PMID: 32415788.

***(1) Science editor:***

The manuscript has been peer-reviewed, and it's ready for the first decision.

Language Quality: Grade B (Minor language polishing)

Scientific Quality: Grade C (Good)

Response: The language was polished again.

***(2) Company editor-in-chief:***

I have reviewed the Peer-Review Report, the full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Clinical Cases, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. Before its final acceptance, the author(s) must provide the Signed Consent for Treatment Form(s) or Document(s).

Response: Yes, we did it.

Before final acceptance, uniform presentation should be used for figures showing the same or similar contents; for example, “Figure 1 Pathological changes of atrophic gastritis after treatment. A: ...; B: ...; C: ...; D: ...; E: ...; F: ...; G: ...”.

Response: We deeply appreciate the company editor-in-chief’s suggestions. We have summarized and organized the pictures into three parts: fibrolaryngoscopy, imaging results, and pathological report.

Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor. In order to respect and protect the author’s intellectual property rights and prevent others from misappropriating figures without the author's authorization or abusing figures without indicating the source, we will indicate the author's copyright for figures originally generated by the author, and if the author has used a figure published elsewhere or that is copyrighted, the author needs to be authorized by the previous publisher or the copyright holder and/or indicate the reference source and copyrights. Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is ‘original’, the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s) 2022.

Response: We are very sure that all the pictures are original, and the use of all the pictures has been approved by the patients and the Army Medical Center of PLA (ratification number is 2021(178)) on October 19, 2021. And this study has not been published elsewhere. Yes, we have added the “Copyright ©The Author(s) 2022” to the bottom right-hand side of the picture in PowerPoint (PPT).

Before final acceptance, when revising the manuscript, the author must supplement and improve the highlights of the latest cutting-edge research results, thereby further improving the content of the manuscript. To this end, authors are advised to apply a new tool, the RCA. RCA is an artificial intelligence technology-based open multidisciplinary citation analysis database. In it, upon obtaining search results from the keywords entered by the author, "Impact Index Per Article" under "Ranked by" should be selected to find the latest highlight articles, which can then be used to further improve an article under preparation/peer-review/revision. Please visit our RCA database for more information at:

[https://www.referencecitationanalysis.com/.](https://www.referencecitationanalysis.com/)

Response: RCA is a very good intelligence technology. However, we did not find highlights of the latest cutting-edge research results related to our research on RCA.