LETTER TO THE EDITOR

Fiberoptic Bronchoscope-guided vs Mini-surgical Technique of Percutaneous Dilatational Tracheostomy in Intensive Care Units: A Comment

Anjishnujit Bandyopadhyay[1], Sunaakshi Puri[2], Vighnesh Ashok[3]

Received on: 26 January 2022; *Accepted on:* 17 February 2022; *Published on:* 31 December 2022

Keywords: Intensive care unit, Mini-surgical tracheostomy, Percutaneous dilatational tracheostomy.
Indian Journal of Critical Care Medicine (2023): 10.5005/jp-journals-10071-24389

We read with avid interest the article published by authors Kumar et al. titled "Fiber-optic Bronchoscope-guided vs Mini-surgical Technique of Percutaneous Dilatational Tracheostomy in Intensive Care Units," and we appreciate the author's work toward an area that needs to be explored further.[1] Despite its strengths, a few comments pertaining to the methodology need to be addressed. The authors cited a previous prospective randomized study by Hashemian et al. for sample size calculation. The incidence of complications has been considered the primary objective.[2] With 90% power and an alpha error of 5% the calculated sample size was 120 patients. However, it is unclear as to how much decrease in the incidence of complications in the mini-surgical group as compared to the percutaneous dilatational tracheostomy (PDT) group authors expect. The treatment effect difference between the two groups is one of the most important parameters in sample size calculation and therefore warrants a detailed description by the authors. As per the methodology laid down in the summary available from the Clinical Trial Registry of India (CTRI) (CTRI/2018/04/013191), the primary outcome was mean procedural time and the calculated sample size was 20 patients in each group. We feel that a comment is needed to address why the primary outcome was changed and whether this change was made after the completion of patient recruitment and analysis. Any disagreement between the published and registered outcome usually implies selective outcome reporting based upon significant *p* values. This practice undermines the validity of a clinical trial and may mislead clinicians and policymakers.[3] Hence, the finding that mini-surgical tracheostomy is a faster alternative to PDT with the same complication rates, cannot be concluded firmly, until the aforementioned methodological inconsistencies are addressed.

Orcid

Anjishnujit Bandyopadhyay https://orcid.org/0000-0003-2971-8887
Sunaakshi Puri https://orcid.org/0000-0002-3297-4358
Vighnesh Ashok https://orcid.org/0000-0001-5185-5656

[1–3]Department of Anesthesia and Intensive Care, Postgraduate Institute of Medical Education and Research, Chandigarh, Punjab, India

Corresponding Author: Anjishnujit Bandyopadhyay, Department of Anesthesia and Intensive Care, Postgraduate Institute of Medical Education and Research, Chandigarh, Punjab, India, Phone: +91 9779234688, e-mail: docbando@gmail.com

How to cite this article: Bandyopadhyay A, Puri S, Ashok V. Fiberoptic Bronchoscope-guided vs Mini-surgical Technique of Percutaneous Dilatational Tracheostomy in Intensive Care Units: A Comment. Indian J Crit Care Med 2023;27(1):78

Source of support: Nil

Conflict of interest: None

References

1. Kumar A, Kohli A, Kachru N, Bhadoria P, Wadhawan S, Kumar D. Fiber-optic bronchoscope-guided vs mini-surgical technique of percutaneous dilatational tracheostomy in intensive care units. Indian J Crit Care Med 2021;25(11):1269–1274. DOI: 10.5005/jp-journals-10071-24021.
2. Hashemian SM, Digaleh H, Massih Daneshvari Hospital Group. A prospective randomized study comparing mini-surgical percutaneous dilatational tracheostomy with surgical and classical percutaneous tracheostomy: A new method beyond contraindications Medicine (Baltimore) 2015;94(47):e2015. DOI: 10.1097/MD.0000000000002015.
3. Chen T, Li C, Qin R, Wang Y, Yu D, Dodd J, et al. Comparison of clinical trial changes in primary outcome and reported intervention effect size between trial registration and publication. JAMA Netw Open 2019;2(7):e197242. DOI: 10.1001/jamanetworkopen.2019.7242.