



The Association Between Postoperative Persistent Cough and Bronchial Angle

Takashi Ohtsuka, MD, PhD

Division of Thoracic Surgery, Department of Surgery, The Jikei University School of Medicine, Tokyo, Japan

In the article by Woo and colleagues,¹ authors investigated the outcomes of left upper division segmentectomy versus lobectomy with particular attention to bronchial tortuosity and persistent cough.

Comparisons of postoperative pulmonary function between segmentectomy and lobectomy have been conducted in several previous studies.^{2,3} Additionally, investigations have been conducted on persistent cough and postoperative bronchial angle following right upper lobectomy.⁴ However, there have been no studies examining the association between persistent cough and its causes, particularly with bronchial tortuosity, in the surgical management of left upper lobe lung tumors, comparing left upper lobectomy and left upper division segmentectomy techniques.

The debate surrounding the optimal surgical approach for patients with left upper lobe lung cancers continues to be a challenge. The findings of this retrospective study, encompassing 135 patients, shed light on crucial aspects of postoperative recovery and functional implications. Furthermore, the analysis of bronchus angle and tortuosity revealed intriguing insights. The left main bronchus-curvature index was notably higher in the left upper lobectomy group, suggesting a potential impact on postoperative respiratory symptoms.

It is intriguing to note that 60% of patients reported persistent cough following left upper lobe resection. While no definitive findings about postoperative persistent cough have been reported previously, this prevalence appears notably high in routine clinical practice. Additionally, it would be more intriguing to know the timing of postoperative computed tomography (CT) imaging and data analysis. This is because it is believed that the angle of the bronchus may differ between 1 month and 1 year postoperatively. Furthermore, in everyday clinical practice, most patients cease to complain of coughing after approximately 2 months postoperatively. By longitudinally monitoring postoperative CT scans, it may be possible to explore the mechanism behind this phenomenon.

This study comparing left upper division segmentectomy and left upper lobectomy offers valuable insights into the benefits of segmental resection. It is anticipated that future studies will investigate the impact of both segmentectomy and lobectomy on postoperative respiratory symptoms.

DISCLOSURE The author declares no conflicts of interest.

REFERENCES

1. Woo W, Park CH, Jimin L, Hwan MD, Sungsoo L. Left upper division segmentectomy compared with lobectomy for lung expansion and bronchus tortuosity. *Ann Surg Oncol*. 2024. <https://doi.org/10.1245/s10434-024-15012-6>.
2. Altorki N, Wang X, Kozono D, Watt C, Landrenau R, Wigle D, et al. Lobar or sublobar resection for peripheral stage ia non-small-cell lung cancer. *N Engl J Med*. 2023;388(6):489–98.
3. Saji H, Okada M, Tsuboi M, Nakajima R, Suzuki K, Aokage K, et al. Segmentectomy versus lobectomy in small-sized peripheral non-small-cell lung cancer (JCOG0802/WJOG4607L): a multicentre, open-label, phase 3, randomised, controlled, non-inferiority trial. *Lancet*. 2022;399(10335):1607–17.

This article refers to: Woo W, Park CH, Jimin L, Hwan MD, Sungsoo L. Left upper division segmentectomy compared with lobectomy for lung expansion and bronchus tortuosity. *Ann Surg Oncol*. (2024). <https://doi.org/10.1245/s10434-024-15012-6>

© Society of Surgical Oncology 2024

First Received: 8 March 2024

Accepted: 22 March 2024

T. Ohtsuka, MD, PhD
e-mail: ohtsuka@jikei.ac.jp

Published online: 16 April 2024

- Lu XF, Min XP, Lu B, Fan GH, Zhu TY. Bronchial morphological changes are associated with postoperative intractable cough after right upper lobectomy in lung cancer patients. *Quant Imaging Med Surg.* 2022;12(1):196–206.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.