LETTER TO THE EDITOR

Could the molecular profile help predict occult nodal metastasis in early-stage lung adenocarcinoma?

Ryo Karita[1,2] · Hidemi Suzuki[1] · Yuki Onozato[1,2] · Taisuke Kaiho[1] · Terunaga Inage[1] · Takamasa Ito[1] · Kazuhisa Tanaka[1] · Yuichi Sakairi[1] · Ichiro Yoshino[1,2]

Thank you for your correspondence pertaining to our manuscript. As you astutely observed, a pivotal facet of this investigation lies in its demonstration of the potential for prognosticating occult lymph node metastasis (OLM) solely through preoperative computed tomography (CT) findings. Previous reports posited that carcinoembryonic antigen (CEA) and the maximum standardized uptake (SUV_{max}) derived from ^{18}F-fluorodeoxyglucose positron emission tomography combined with CT (PET-CT) might serve as predictive indicators of OLM [1, 2]. Nevertheless, our study demonstrates that preoperative CT is able to anticipate OLM even when performed alone. We posit that the findings of this study carry substantial validity, particularly considering the likelihood that a multitude of cases globally, especially in resource-constrained regions, rely exclusively upon CT to inform surgical indications.

In recent times, the growing significance of neoadjuvant chemotherapy has garnered attention within the realm of lung cancer therapeutics, as exemplified by studies such as KEYNOTE-671 [3] and CheckMate-816 [4]. Therefore, the present investigation highlighting the potential for a straightforward and precise prognostication of clinical TNM stage (cStage) seems exceedingly useful.

In line with your valuable suggestion, namely the need to incorporate insights from molecular profiling when making informed treatment choices, the next order of inquiry pertains to elucidating the correlation with relevant factors, such as EGFR mutations, ALK rearrangements, and PD-L1 expression. We intend to perform a comprehensive analysis and publish a subsequent report on this matter in the future.

Declarations

Conflict of interest Ryo Karita and other co-authors have no conflict of interest.

References

1. Ye Bo, Cheng M, Li W, Ge X-X, Geng J-F, Feng J, et al. Predictive factors for lymph node metastasis in clinical stage IA lung adenocarcinoma. Ann Thorac Surg. 2014;98:217–23.
2. Huang Miao, Li Shaolei, Li Nan, Lai Yumei, Zhang Shanyuan, Lu Fangliang, et al. Occult mediastinal lymph node metastasis in FDG-PET/CT node-negative lung adenocarcinoma patients: Risk factors and histopathological study. Thoracic Cancer 2019; 10:1453-1460
3. Wakelee H, Liberman M, Kato T, Tsuboi M, Lee S-H, Gao S, et al. Perioperative pembrolizumab for early-stage non–small-cell lung cancer. N Engl J Med. 2023;389:491–503.
4. Patrick M. Forde, Jonathan Spicer, Shun Lu, Mariano Provencio, Tetsuya Mitsudomi, Mark M, et al. Neoadjuvant Nivolumab plus Chemotherapy in Resectable Lung Cancer. N Engl J Med 2022; 386:1973–85.

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

✉ Hidemi Suzuki
  hidemisuzukidesu@yahoo.co.jp

1 Department of General Thoracic Surgery, Chiba University Graduate School of Medicine, 1-8-1, Inohana, Chuo-ku, Chiba 260-8670, Japan

2 Department of Thoracic Surgery, International University of Health and Welfare School of Medicine, Chiba, Japan