

Point-by-point Response to Reviewers

- Reviewer 1 (Reviewer's code: 03850246):

This paper is the bad presentation of a poorly studied case. An ill-studied case cannot be given the interest for this reason to become a case report. A diagnosis of squamous cell carcinoma is made and then in the resection small cell carcinoma metastases are found without apparent primitiveness and then chemotherapy is started. What is the point of publishing a list of evidence without an explanation and without an explanation that has scientific significance? Who has a scaly should expect an outcome of this type?

Response: Thank you very much for taking the time to review this report. We appreciate your comments and will take your comments about our lack of research very seriously. Firstly, we acknowledge the importance of conducting rigorous research and recognize the limitations of our study. However, we believe this case report holds significance due to the rare nature of synchronous multiple lung cancers with small cell carcinoma metastases of unknown origin. Our aim was to present a unique clinical scenario that poses diagnostic and treatment challenges, thereby contributing to understanding such cases in the medical community. We apologize for the lack of detailed explanation in our initial response.

The revised manuscript will provide a comprehensive account of the diagnostic process, including the histopathological findings, which revealed the coexistence of squamous and small cell carcinoma metastases without an apparent primary lesion. Furthermore, we will elucidate the rationale behind the initiation of chemotherapy in light of the small cell carcinoma metastasis. Considering the complexities presented by this case, we will also address your question regarding the expected outcome for individuals with squamous cell carcinoma. We hope these revisions will address your concerns and demonstrate the scientific significance of our case report.

- Reviewer 2 (Reviewer's code: 02936735):

This is an interesting case report.

Response: Thank you very much for taking your valuable time to review this report. We are delighted to hear that this has captured your attention. We believe that the uniqueness of this case, involving multiple synchronous lung cancers with lymph node metastasis and the challenge of identifying the primary origin of small cell carcinoma, contributes significantly to the existing literature. We hope that this manuscript will be accepted.

• Reviewer 3 (Reviewer's code: 03270441):

The authors reported a very rare case of simultaneous multiple primary lung cancer, and successful treatment achieved good clinical results. One suggestion: Some literature are too outdated. If possible, please refer to recent literature instead. These literature include but are not limited to: R1-3 and R9, etc.

Response: Thank you very much for reviewing this report and acknowledging the rarity of our reported case of simultaneous multiple primary lung cancer. We greatly appreciate your suggestion to update the references to more recent literature. The outdated references mentioned in 1-2 and 9 will be replaced with more current and relevant literature (**Trousse D** et al. Synchronous multiple primary lung cancer: an increasing clinical occurrence requiring multidisciplinary management. *J Thorac Cardiovasc Surg* 2007; **133**: 1193–200, **Chang SK et al.** A case of lung and mediastinal and hilar lymph node metastasis in a patient with cancer of unknown primary site. *Clin Exp Metastasis* 2022; **39**: 259–261, **Lee MS et al.** Cancer of unknown primary. *BMJ* 2020; **371**: m4050.). However, we would like to retain reference 3 as it is the author's name used as a diagnostic criterion in many papers. We have also changed some of the contents accordingly. Thank you for your valuable feedback, and we appreciate your cooperation.