Peer Review File

Reviewer A

Comment 1: The authors have included cases up to the relatively recent year of 2021. In these recent cases, even if there is a recurrence, new treatments such as immunotherapy and targeted molecular drugs are emerging. However, one wonders if these post-treatments have any impact?

Reply 1: Thank you very much for your constructive suggestion. Postoperative treatment might affect the result. In our univariate regression analysis, postoperative adjuvant therapy was not an independent risk factor for survival. We should be cautious for this result due to limited sample size. Some new treatments are emerging, the role of new treatments on survival needs to be further verified. We have added some discussion about this treatment in our discussion part. Thank you very much.

Changes in the text: We have modified our text as advised (see Page 11, line 272-273). Thank you very much.

Comment 2: It is intriguing that the impact varies between squamous cell carcinoma and adenocarcinoma, yet a convincing reason for this difference is unclear. Do the authors provide any discussion or literature-based examination on this point?

Reply 2: Thank you very much. We found that the impact of FHC on survival was different in the patients with LUAD and LUSC. According to your suggestion, we have added some discussion about different biological mechanisms, mutations status, and smoking status between LUAD and LUSC. We have modified our text. Thank you very much.

Changes in the text: We have modified our text as advised (see Page 10-11, line 242-256). Thank you very much.

Comment 3: There are existing reports, as the authors have also indicated, that a family history of lung cancer is associated with a poor prognosis. This paper focuses on surgical cases, but if the premise is that a family history of lung cancer inherently leads to a worse prognosis, then the outcome may be independent of the surgical intervention. Given that "surgical cases" were specifically selected for this study, one might wonder if the authors believe that the results should influence the extent of lung resection (Ex Sublobar resection should not be performed) and perioperative treatment.

Reply 3: Thank you very much. according to your suggestion, we have added some discussion about this point. We found that FHC is an independent prognostic factor in LUSC, prompting the question of whether individuals with FHC, who are suitable for sublobar resection, might experience greater benefits from undergoing lobectomy instead.

Furthermore, the clinical significance of incorporating perioperative treatments for such high-risk NSCLC needs to be researched.

Changes in the text: We have modified our text as advised (see Page 11, line 262-267). Thank you very much.

Comment 1: Please also define all abbreviations at their first appearance in the **Highlight Box**.

Response 1: thank you very much, we have revised.

Comment 2: Please supplement the table header for Table 2.

407 Table 2 Family history of cancer in LUAD and LUSC patients

	LUAD with FHC (1077)	LUSC with FHC n=72	
Number of relatives with cancer, n(%)			

And please capitalize below words in table 2, please also check table 1.

Siblings or offspring only
Others*
Type of cancer**, n(%)
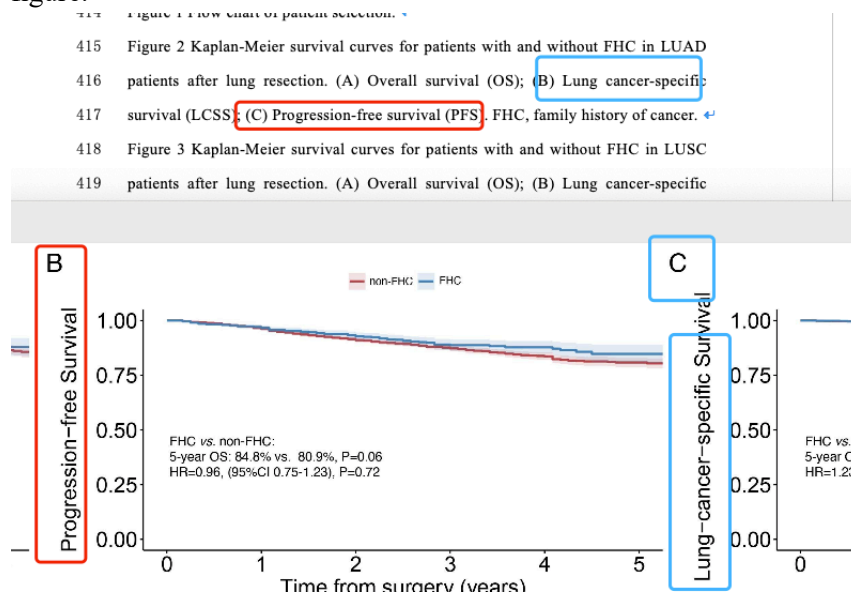lung
esophagus
liver
gastric
colorectum
pancrea
breast
lymphoma
nasopharynx
blood
gallbladder
prostate
bladder
ovary
brain
larynx
uterus
oral
thyroid
kidney
bone
cervix
rectum
mediastinal
melanoma

Response 2: thank you very much, we have added the table header and capitalized the words in table 1 and table 2.

Comment 3: And please define ALL abbreviations shown in the figures in their figure legends separately. Like LUSC, LUAD, FHC in figure 1…

Response 3: thank you very much, we have added the table header and capitalized the words in table 1 and table 2.

Comment 4: Figure 2: Please check for below inconsistency between the legends and the figure.

Response 4: thank you very much, we have revised the figure legends.

Comment 5: And same matter in figure 3 legends, please check and revise.

Response 5: thank you very much, we have revised the figure legends.