Peer review file
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Reviewer A

. P.2-L.8: "malignancy or prognosis of lung adenocarcinomas". The work is done in patients with adenocarcinomas. Therefore, any mention of the NSCLC in general should be removed. IT MUST BE VERY CLEAR AT ALL TIMES THAT THE WORK HAS BEEN DONE WITH ADENOCARCINOMAS.

Reply:

Thank you for your indications. We retrospectively evaluate whether radiological tools for NSCLC. According to your suggestions, we corrected the word as follows in sentences. Various radiological tools have been introduced to determine the malignancy or prognosis of lung carcinomas.

P.2-L.9-12: This paragraph would be more appropriate in " Patients and methods".

Reply:

We are sorry for this mistake. According to your suggestions and manuscript regulation, we corrected Patients to **Methods.**

. P.2: "Patients and Methods": Just survival was analyzed? (see previous observation).

Reply: Thank you for your indications. We analyzed disease-free survival and overall survival.

. P.6-L.17-18: Say: "[level, −600HU; width, 1500 Hounsfield units (HU)]"; should say: "[level, −600 Hounsfield units (HU); width, 1500 HU]".

Reply:

Thank you for bringing it to my attention. According to your suggestions, we corrected the paragraph.

−600 Hounsfield units (HU); width, 1500 HU

. P6-L.21: I think the formula should be completed with the expression "x 100"; it is expressed as a percentage. And it would be more correct to put the expression "MD / whole-tumor diameter" in parentheses

Reply:

Thank you for your indication. According to your suggestions, we corrected the paragraph.

TDR (%): (1 – (MD / whole-tumor diameter))×100

. P.7-L.13-14: Were all clinical stages pathologically confirmed?. It is assumed that there was no finding in this regard, because it would have been excluded, but it would be correct to confirm it.

Reply:

Thank you for your indication. We just evaluated the prognostic factor of clinical stage I lung cancer using HRCT. To evaluate the pathological stage deviates from the subjective of this study, we did not include pathological parameters.

. P.7-L.21-23: This information appears in Table 1; it would be enough to refer it.

Reply:

Thank you for your suggestion. According to your suggestions, we corrected the sentence. The cN0-staged NSCLCs were categorized in the following clinical T categories in Table 1.

. P.7-L.23-24: The incidences of CTR appear in the text broken down by stages; however, in Table 1 they appear globally. It seems more correct on the contrary.

Reply:

Thank you for your indications. According to your suggestions, we corrected the

sentence. The incidences of CTR (≤0.5) were 100% (11/11) in T1mi, 61.0% (25/41) in T1a, 88.5% (10/113) in T1b, and 0% (0/95) in T1c.

P.8-L.1-2: Following the order of Table 1, the global TDR results (by percent range) should appear here, before MD Results. And in Table 1, the incidence of TDR should appear by stages, as it has been discussed with CTR.

P.8-L.3: The sentence must be completed: "patients with perceivable mutation status, 81.8% (9/11) of them harbored EGFR in T1mi"

P.8-L.5.: As the results for EGFR are expressed, the KRAS results should also appear, as shown in Table 1.

Reply:

Thank you for your indications. We had many mistakes, but we prepared the table2. According to your suggestions, we added the next sentence;

The cN0-staged NSCLCs were categorized in the following clinical T categories in Table 1. The incidences of various radiological implements and mutation status corresponded to clinical T categories in Table 2.

. It seems correct to me to indicate the EGFR and KRAS mutations observed; however, they are not used to determine survival based on them. It could have been an interesting addition.

Reply:

Thank you for your indication. In this study, we did not evaluate survival results between these mutations, because to evaluate these mutations deviates from the subjective of this study.

. P.8-L.6 and 8: The results obtained indicate a worse prognosis "with> 75 in TDR"; however, other studies find this value as a favorable prognostic factor. THE DISCUSSION DOES NOT ANALYZE THIS.

Reply:

We are sorry and appreciate for your indication. We corrected table 1, and comments of figure 2(C), and 3(C).

Black: >75, Red: 26–75, and Blue: ≤25.

(Our outcome of TDR ≤25 showed worse prognosis similar to other reports.)

. P.8-L.16-18: DFS and OS distribution for different TDR value ranges unclear.

Reply:

Thank you for your indications. According to your suggestions, we corrected the next sentences, and comments of figure 2(C), and 3(C).

In the TDR subgroup analysis, the 5-year DFS and OS rates were 70.5%, 86.0%, and 95.1%, and 95.1%, 89.4%, and 92.4% in the ≤25, 26–75, and >75 TDR groups, respectively (Figure 2C and 3C).

P.9-L.9: The sentence must be completed: ">0.5 (p = 0.06) in CTR".

Reply:

According to your suggestions, we corrected the sentence as follows.

After adjustment for potential confounding factors, the risk of poor DFS and OS increased gradually for each radiological parameter, with the significantly poorest DFS being associated with >0.5 in CTR (p = 0.01), with ≤25 in TDR (p = 0.02), and with 6–20 and >20 mm in MD (p = 0.04 and p < 0.01). Significantly increased risks of poor OS were observed for ≤25 in TDR (p = 0.02), and >20 mm in MD (p = 0.02), but not for >0.5 in CTR (p = 0.62).

. P.10-L.18: Do you mean "ground gross tumor size" of "ground glass tumor size"?.

Reply:

According to your suggestions, we corrected the sentence as follows.

The ground glass tumor size has played a very important role in preoperative clinical evaluation,

. P.10-L.23-24: IN THE STUDY, where does the prognostic value of CD and / or MD compare with CTR or TDR?.

Reply:

Thank you for your suggestion. According to your suggestions, we corrected the sentence as follows. Finally, the estimated HRs for DFS, and OS were calculated according to Clinical T category, CTR, TDR, and MD as radiological parameters (Table 2), layered parameter using consolidation size and/or MD could contribute superior prognostic parameter compared to those of CTR or TDR.

. P.11-L.24: Throughout the study, the authors affirm that all cases underwent thoracotomy; however, here it says almost all cases. Authors should clarify.

Reply:

According to your suggestions, we corrected the sentence as follows.

However, this work had the strength that the study population was relatively acceptable, and we did not need to rule out inherent potential bias with respect to the surgical indication for thoracoscopy surgery because thoracotomy was performed in all cases.

. P.12-L.6: "NSCLCs" should be replaced by "adenocarcinomas".

Reply:

In this study, we evaluated not adenocarcinoma, but NSCLCs.

. The second part of the discussion is devoted to reviewing previous studies by the authors themselves: the authors report their results with CD and MD; I believe that this does not contribute anything decisive to the work. However, the authors do not contrast their results regarding CTR and TDR with other published works.

Reply:

Thank you for your indication. According to your suggestions, we added the sentence as follows in front of the second part of the discussion.

Several reports described that CTR and TDR were not prognostic parameters for clinical stage I lung adenocarcinomas [9, 14, 15, 16]. Nowadays, it is considered that the size of the consolidation diameter itself is important as a prognostic factor in terms of tumor morphology, whereas the CTR and TDR relatively evaluate the component of the consolidation to the overall tumor diameter. For the total adenocarcinomas, clinical T category was better radiological prognostic tool [9].

In Figs. 2 and 3, sections A, B, C and D should be clear.

We modified.

Reviewer B

The authors have examined the ability of certain radiographic features to correlate with outcome in patients with resected lung cancer.
It seems that most of the results are expected and have been shown in previous literature. The authors first show that T1a lesions have better prognoses than T1b, which is better than T1c. Then they show that as diameter increases, prognosis worsens. Their results do not seem to be novel.

Reply:
Thank you for your indications. In this paper, we reconsidered the findings so far and at the same time studied what are the optimal radiographic tool including MD. In total NSCLCs, all radiological tools revealed significant correlations with prognosis in the patients with cT1N0-staged NSCLCs. We recommend the use of MD in a clinical context.

We received the request of editorial from this journal. There was not the article about the long-term outcomes in MD, therefore we invested those using our own clinical data.

2. Beginning on line 16 on page 8, it appears that there is a missing value. The authors list 3 groupings for TDR and attempt to list the DFS and OS for each grouping. But there are only 5 percentages listed. It seems that the sentence is formatted incorrectly as well, with commas in the wrong places.

Reply:

Thank you for bringing it to my attention. According to your suggestions, we corrected the next sentences, and comments of figure 2(C), and 3(C).

In the TDR subgroup analysis, the 5-year DFS and OS rates were 70.5%, ??%, and 86.0%, and 95.1%, 89.4%, and 92.4% in the ≤25, 26–75, and >75 TDR groups, respectively (Figure 2C and 3C).

3. Why did the authors look at only T1 lesions? This study potentially could be more robust if more patients and different stages.

Reply:

We selected the subjects with small lung cancer to compare T1mi/T1a with other tumors.

4. How would the authors recommend using this radiologic information for patient care? It the conclusion paragraph, they say that the "recommend the MD classification." But would they recommend adjuvant chemoradiation treatment based on the MD value? Or increased surveillance? Or some other change in treatment plan? They should detail the relevance of their study and findings.

Reply:

According to your suggestions, we added the sentence as follows in conclusion.

We suggested that NSCLCs with larger MD should be planned more increased surveillance.