

Peer Review File

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Reviewer A

Nakahashi et al describe their work on the ability of the VDT on SCC prognosis. Retrospective Statistical analysis of 51 patients demonstrated that VDT was the only strong predictor of overall survival in these patients. The paper is nicely written, the statistical explanations and approaches are well thought out. The discussion is nicely written and presented. I thoroughly enjoyed reading the manuscript.

Recommendations:

Line 35: SCC is part of NSCLC, would ask the authors to clarify their sentence for the audience. VDT has been shown to predict outcomes in various NSCLC with scant evidence for SCC (something like this). The authors approached this nicely in the discussion section, would recommend they transfer this to the abstract as well (example line 322-325)

Reply: Thank you for your indication. I will change line 35 to your indication like this.
Changes in the text: Tumor volume doubling time (VDT) has been shown to predict prognosis in various non-small cell lung carcinoma with scant evidence for lung squamous cell carcinoma (SCC).

I would ask the authors to remove of the 95 patients (no need to increase numbers on abstract) and stick to the data on the 51 patients analyzed in the abstract section. Otherwise, the abstract is nice and concise with pertinent information

Introduction is concise and nicely presented.

Reply: Thank you for your reviewing. In the abstract session, we omit the statement that we enrolled 95 patients.

Changes in the text: In this study, subjects were 51 patients who underwent lobectomy for clinical stage I SCC of the peripheral lung at our institution between January 2006 and April 2020.

Methods section is robust with clear explanation on inclusion, exclusion criteria, statistical analysis, and image analysis. I particularly enjoyed the description of the mathematical model for tumor volume doubling time. The complementary supplement images were nicely presented.

The discussion is robust and leans on literature aggressively to support the authors claims.

Reply: Thanks for your evaluations. We will improve this manuscript to be better.

Reviewer B

The authors present an interesting and well-structured manuscript. The authors make an adequate justification of the state of the art and the novelty of this study. The methodology is correct and innovative. The results allow us to support the conclusions. The authors should improve concise aspects of the discussion such as histopathological aspects. Authors should include manuscripts in the discussion such as:

doi: 10.3892/ijo.2022.5444.

doi: 10.3390/jpm13020167.

Reply: Thank you for your indication. I added description of histopathological aspects in the text (see page 17, line 361), citing “doi:10.3892/ijo.2022.5444”.

Changes in the text: In addition, Ortega et al. reported that molecular markers such as EGFR and ALK can be used to select target therapy and predict prognosis in lung cancer (24). In lung SCC, compared to adenocarcinoma, the number of useful markers is limited. Although not explored in this study, more detailed analysis of data on molecular markers would be essential in the future.

The authors should discuss the limitations and justify the sample size.

Reply: Thanks for your comment. I added a discussion to the limitation section and also mentioned sample size (see page 19, line 411).

Changes in the text: Also, the sample size is 51 patients, which is small. Lung SCC is less common than adenocarcinoma, and the proportion of patients with early stage is even smaller. Therefore, it is reasonable that the sample size is small, but it is also necessary to consider integrating data from multiple facilities in order to confirm more reliable results.

Authors should improve the use of English grammar.

Reply: Thanks for your suggestion. I have revised the English grammar in several parts of the main text.

Changes in the text: Suzuki et al. found that ground-glass opacity (GGO) on lung computed tomography (CT) predicts a favorable prognosis of adenocarcinoma (4) (see page 5, line 104)

Changes in the text: In this study, we examined the possibility use of tumor volume doubling time (VDT) for this purpose. (see page 6, line 117)

Changes in the text: In this study, we analyzed potential preoperative prognostic factors for resected stage I lung SCC and found that preoperative VDT is a significant predictor of prognosis. (see page 15, line 322)

Changes in the text: High SUVmax has been demonstrated as a poor prognostic factor in NSCLC by Paesmans in a meta-analysis (25) (see page 18, line 392).