



Comment on: 'Correlation of Tumor Spread through Air Spaces and Clinicopathological Characteristics in Surgically Resected Lung Adenocarcinomas'



To the Editor:

We read with great interest the study by Szu-Yen Hu et al. [1]. This retrospective study identified that the presence of spread through air spaces (STAS) might be considered as a staging profile of lung adenocarcinomas in future staging system, because STAS was significantly correlated with several invasive clinicopathological characteristics (e.g., higher T, N stages, moderate/poor differentiation and the presence of lymphovascular invasion) in multivariate analysis for resected lung adenocarcinoma. Herein, we would like to raise the following comments:

First, The histopathology pattern was classified according to the 2015 World Health Organization criteria in their study [2], However STAS is an excluded criteria for adenocarcinoma in situ (AIS) and minimally invasive adenocarcinoma (MIA) according to the criteria [3]. So AIS and MIA should not be included, which would change the proportion of predominant subtype and histologic differentiation grade, especially for lepidic subtype and well differentiation. The result of statistical analysis might be affected too. Furthermore, STAS was found in a patient of MIA, which was a paradox.

Meanwhile, the high grade histologic patterns (micropapillary and solid patterns) had a poor prognostic significance in lung adenocarcinoma, so the micropapillary and solid patterns as predominant subtypes should be analyzed as a variable in multivariate analysis rather than lepidic pattern.

Moreover, some researchers had demonstrated malignant tissue fragments were a reproducible artifact caused by mechanical forces during specimen handling and gross cut-up [4], and the squeeze effect when lobes including tumors were removed through tiny holes in video-assisted thoracoscopic surgery (VATS) was not clear now. If the artificial effects could not be considered, the value of STAS as a staging profile was not credible. In other words, STAS might increase with the growth of tumor, just because larger tumor suffered more artificial

factors.

In summary, we suggest that more studies should be performed to refine the definition of STAS, which could exclude the confounding factors. There is a long period to made STAS into staging system as a staging profile.

Acknowledgement

This study was supported by National Natural Science Foundation of China (No. 81672291, No. 31071210) to Yi-Dan Lin

Conflict of interest

The authors declare no conflict of interest.

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DOI of original article: <https://doi.org/10.1016/j.lungcan.2018.11.003>

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<https://doi.org/10.1016/j.lungcan.2019.02.016>

Received 29 December 2018

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