Reviewer’s report

Title: The combination of CTCs and CEA can help guide the management of patients with SPNs suspected of being lung cancer

Version: 0 Date: 16 Dec 2019

Reviewer: Tetsuhiko Asao

Reviewer's report:

This manuscript reports the utility of the combination of circulating tumor cells (CTCs) and carcinoembryonic antigen (CEA) for the diagnosis of solitary pulmonary nodules (SPNs). The authors detect CTCs using i-FISH method, which needs further explanation. With the cutoff value of 6 CTC units, the sensitivity was 67.1% and the specificity was 56.5% in the diagnosis of lung cancer in patients with SPNs. After combining CTC counts and CEA level, the area under the curve (AUC) was 0.827. As the authors noted, the validation of the detecting method (lack of healthy control) is major limitation of the study. In this study, median CTC counts were 5.5 in benign nodules which mean there are considerable amount of false detection in patients with benign nodules. There are some issues that I would like to have your comments.

Major comment

1. Please provide the details of i-FISH method and provide the references of the previous studies. The validity of the method is essential because the detection of CTCs is largely depend on the methods.

2. Please provide the sensitivity and specificity of CTC+CEA in Table3.

Minor comments

1. Table2: Interquartile range is lacking.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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