Reviewer's report

Title: Temperature Differences are Associated With Malignancy on Lung Lesions: a Clinical Study

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Reviewer: Dr Ignacio Wistuba

Level of interest: A paper whose findings are important to those with closely related research interests

Advice on publication: Accept after discretionary revisions

The authors investigated if the thermal heterogeneity of solid lung tumors in bronchial epithelium constitutes a marker for the diagnosis of benign and malignant lesions. They used a thermography catheter through the biopsy channel of the bronchoscope to calculate the temperature differences between the lesion and a normal bronchial epithelium. They studied 11 being and 11 malignant tumors, and significant differences on the temperatures differences were detected between patients with being and malignant lesions. Their findings suggest that temperature difference between normal and neoplastic tissues using this method could be a useful criterion for the diagnosis of malignancy of lung lesions.

This is a well executed work and the paper is well written. This study has both general and specific interest for neoplastic diseases and lung cancer, respectively. I have few minor suggestion to the authors
1. Why in the result section 12 subjects with chronic inflammation and 10 patients with malignant tumors are mentioned? In the abstract and the result section 20 patients were described (and 22 lesions). Please clarify to the readers this point
2. As histopathological analysis was performed in all tumors examined, I suggest to include specific diagnosis of the tumors for the 11 malignant lesions tested.
I suggest include a table including patients with malignant and non-malignant lesions, diagnosis and most important data on temperature differences between lesion and normal bronchial tissue.

Competing interests:

None declared.