Peer Review File

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Reviewer #1

Comment 1: R-EBUS has been widely used in diagnosing pulmonary nodules. Is there any data to confirm its clinical effect, especially whether the technique described in this paper can further improve the diagnostic rate?

Reply 1: Thank you for your comment. This was briefly touched on in our cover letter, but we are not sure if this was shared with the reviewers. This review was invited as part of a larger series in CCTS; another author has been assigned the topic of EBUS in biopsy of peripheral nodules. Nonetheless, we agree that R-EBUS is critical to biopsy of peripheral nodules, and the navigation technologies discussed in our review are a supplement to this technology (as noted in our conclusion).

We would however distinguish between nodule diagnosis/biopsy and nodule *access*, with the latter referring to the ability to bring a bronchoscope or instrument into the region of a target. In this respect, R-EBUS has a more limited role. We have revised the introduction to make this distinction clearer. We have also added a reference to the R-EBUS review in the invited series; we defer to the editorial team to update this reference once the other review article is accepted (highlighted in the references section).

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In this context, diagnostic yield can function as an effective surrogate for nodule access, though they are not necessarily equivalent. Nodule access (i.e. the ability to bring a bronchoscope or instrument into the region of a target) is necessary, but not sufficient, for successful biopsy. We direct readers to Dr. Tsukada's review in this issue for a more detailed discussion on considerations for transbronchial biopsy, including endobronchial ultrasound (EBUS) (7).

Reviewer #2

This was well described review article regarding bronchoscopic approaching to the lung nodule.

Comment 1: Is there any data of the saturation level of each modality VBN, RP-EBUS, GS, ENB, UTB and Robotic in US?

Reply 1: There is limited data on the market saturation of these modalities in the United States (or Canada, for that matter). The AQuIRE registry, a multicentre prospective database on transbronchial biopsy of peripheral nodules, offers some recent data, but has significant limitations. The latest data published only includes information from 2009-2013, and thus misses more recent advances (robotic bronchoscopy, next-generation UTB). Furthermore, institutions may have access to some tech-

nologies (e.g. an interventional radiology room that could be used for CT-guided bronchoscopy, a CT reconstruction software package capable of VBN), but not use it. Given the limitations in this data, we have chosen not to include it in our manuscript. Ultimately, the decision of a clinician/institution to integrate a given modality into their local practice should be based on cost, workflow, and efficacy considerations, rather than market saturation.

Comment 2: Is there any comment which direction are we going in the future?

Reply 2: Thank you for your comment. Future directions for each modality were touched on at the end of each respective section. We have expanded this further in the formal conclusion as well.

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Current trends indicate the future of bronchoscopy is smaller, more maneuverable bronchoscopes complemented by navigation systems that can correct for CT-body divergence.