The authors reported no conflicts of interest.

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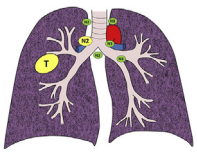

SYSTEMATIC OR TARGETED SAMPLING DURING ENDOBRONCHIAL ULTRASOUND FOR MEDIASTINAL STAGING IN PATIENTS WITH LUNG CANCER AND ABNORMAL MEDIASTINUM

To the Editor:

In the recently published article by Sullivan and colleagues,[1] the authors describe the feasibility of a randomized controlled trial that aims to compare targeted with systematic endobronchial ultrasound–guided transbronchial needle aspiration (EBUS-TBNA) sampling for mediastinal staging in patients with lung cancer. The authors hypothesize that targeted EBUS-TBNA sampling is not inferior to systematic EBUS-TBNA. A targeted, selected, or "hit-and-run" EBUS-TBNA sampling is defined as a specific investigation for malignancy-suspected mediastinal nodes based on positron emission tomography-computed tomography (PET-CT) findings (fluorodeoxyglucose avid or short axis $\geq$10 mm).[2] On the contrary, a systematic EBUS-TBNA sampling is defined as a systematic investigation of all lymph nodes with a short axis $\geq$8 mm by EBUS, regardless of their appearance on PET-CT. This is not the first study that aims to compare both strategies. Previous studies that included patients with abnormal mediastinum on PET-CT have demonstrated the benefits of systematic over targeted sampling in terms of clinically relevant information. Compared with targeted sampling, systematic sampling enhances the sensitivity of EBUS-TBNA for the diagnosis of mediastinal nodal metastases and determines the extent of the mediastinal disease more accurately.[2-4]

In the study of Sullivan and colleagues,[1] the authors compare targeted sampling with systematic sampling based on 3 nodal features: appearance on CT, appearance on PET (fluorodeoxyglucose avidity) and appearance on EBUS, based on the Canada Lymph Node Score.[5] However, since all included patients present normal mediastinum on image techniques, the choice of a systematic sampling or a targeted sampling is based only on EBUS findings (Canada Lymph Node Score). Based on their initial results, with an incidence of missed mediastinal metastases of 5.45% for targeted sampling, the authors affirm that targeted sampling is safe enough, and that there are no clinically significant differences between both strategies (although there is an increase in the detection of malignant nodes from 1.75% for targeted sampling to 7.27% for systematic sampling).

However, in our opinion, these results must be interpretated with prudence. First, because not all negative results were confirmed by surgery, and second, because all the included patients had normal mediastinum on imaging techniques. In such clinical scenario, with low prevalence of mediastinal involvement, it is well known that the sensitivity of EBUS-TBNA declines and, therefore, differences between a targeted sampling and a systematic sampling may appear lower than they are in patients with abnormal mediastinum.

We agree with the authors that it is important to establish strategies to reduce the timing of mediastinal staging in patients with lung cancer. This means avoiding redundant explorations and reducing the length of the procedures. However, mediastinal staging is a crucial step in the management of patients with lung cancer and any of these measures cannot affect its thoroughness. Systematic staging through EBUS-TBNA in patients with abnormal mediastinum on PET-CT has demonstrated to be more precise than targeted sampling and still must be recommended in such clinical scenario.

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