Commentary

The route of FNA for mediastinal nodes, 'to each his own'

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The earlier studies on mediastinal lymph node (MLN) fine needle aspiration (FNA) were limited to endoscopic ultrasound (EUS)-FNA from the esophagus or relatively blind transbronchial needle aspiration. The smaller diameter endobronchial ultrasound (EBUS) scope came into practice few years after the EUS scope. After the evolution of EBUS, the pulmonary physicians or thoracic surgeons almost always performed EBUS-FNA, while EUS-FNA generally remained in the domain of the gastroenterologist. In the year 2009, the International Association for Study of Lung Cancer (IASLC) proposed a classification of MLN at different stations, and the standard techniques for FNA cytology of MLN by EBUS and EUS were soon defined.[1-3] A majority of the MLN at station 7, or 4Lwere within easy reach of both EUS and EBUS. MLN at stations 5, 6, 8, and 9 could be approached by EUS alone, and MLN at station 10, 4R or 2R, could be approached only by the EBUS scope. The pulmonary physicians and the gastroenterologists both realized that satisfactory evaluation of MLN could be made by both procedures and EBUS-FNA and EUS-FNA became potentially competitive first-line, minimally invasive procedures for nodal staging of lung cancer. The practical problem, however, was that many centers had EBUS or EUS, but both modalities at a single center were not commonly available. Hence, the available technique in the institution became the first-line of investigation.[4] Both accomplished the intended goal and a yield equal to mediastinoscopy. The choice between the two was guided by the availability of the technique and the location and accessibility of the lymph nodes. The pulmonologists largely remained confined to entry from the trachea, but soon realized that the esophagus was an alternative route of entry by the EBUS scope. For some pulmonologists the alternative route became more popular and the use of the EBUS scope was routinely done from the esophagus, especially in situations where EBUS-FNA was not tolerated as well, due to refractory cough, poor lung function or a significant comorbid lung disease.[4] The pulmonologists were soon using a combined approach, where they were initially putting the EBUS scope into the trachea and then into the esophagus. They argued that this approach reduced the need for an additional instrument, the operating costs, and the duration of the procedure.[5] The EBUS protagonists, however, downplayed the safety profile of EUS-FNA as a first-line procedure in comparison to EBUS-FNA and suggested that EBUS-FNA was also a safe procedure (except for cough).[4] As the gastroenterologists became aware of the use of the EBUS scope through the esophagus, they raised some technical issues.The gastroenterologists did not favor the use of the EBUS scope through the transesophageal route because of limited vision, limited depth of penetration, and limited range of scanning (50°-70° by EBUS scope vs. 120°-180° by EUS scope).[6] A diverse situation had emerged where one operator (pulmonologist) was using one equipment (EBUS scope) from two routes (esophagus and trachea), two operators (gastroenterologist and pulmonologist) were using two separate equipments (EUS and EBUS scopes) from two routes, and less commonly, a single operator who had been trained for use both scopes, was using two equipments from two routes.[5] On the one hand there was competition for a diagnostic evaluation in cases of benign MLN, and on other, there was a requirement for a combination of EUS and EBUS (so called complete 'medical' mediastinoscopy). A combined approach became the standard of care for the staging of lung cancer and the American College of Chest Physicians (ACCP) recommended, "in patients with high suspicion of N2 and 3 involvement, either by discrete mediastinal lymph node enlargement or PET uptake (and no distant metastasis), a needle technique (EBUS -needle aspiration [NA], EUS-NA or combined EBUS/EUS-NA is recommended over surgical staging as a first best test (grade 1b)".[7]

Dhooria *et al* in their study of 32 cases published in this issue of Lung India[8] have inferred that FNA using a echobronchoscope (EUS-B-FNA) is useful addition to various techniques for evaluation of mediastinal lymphadenopathy.

No suitable comparison by a single operator is available to decide an order of diagnostic FNA (transesophageal first or transbronchial first). Endobrochial ultrasound has been suggested as the first choice for the mediastinum.[9] The new generation of operators, familiar with both the techniques, need to provide clear-cut algorithms by conducting studies. Until the algorithms are available, EUS-FNA could be considered the first test for ultrasound-guided evaluation of MLN, because of the ease and safety of the procedure. Eventually, whatever may be the order of imaging, the new generation of interventionists should learn both EUS and EBUS.

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