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5th Meeting of the Thoracic Oncology, Thoracic Surgery, Techniques & Transplant, Respiratory Nursing and Respiratory Physiotherapy Areas of the Spanish Society of Pneumology and Thoracic Surgery (SEPAR)
Sociedad Española de Neumología y Cirugía Torácica (SEPAR)

10th International Workshop on Surgical Exploration of the Mediastinum and Systematic Nodal Dissection
Hospital Universitari Mútua Terrassa | Universitat de Barcelona

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3rd Joint Meeting of the Spanish Society of Thoracic Surgery (SECT)
SECT Sociedad Española de Cirugía Torácica

30th Congress of the "Asociación Iberoamericana de Cirugía Torácica" AIACT

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EBUS/EUS FOR RESTAGING VALIDATED BY TEMLA

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Real-time endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) and endoscopic ultrasound-guided fine needle aspiration by use of bronchoscope (EUS-b-FNA) are recently introduced methods of biopsy of the mediastinal, hilar and interlobar lymph nodes. Although widely accepted in non-small cell lung cancer (NSCLC) staging, still is lacking data about the role of both endosonographic techniques in lung cancer restaging after neo-adjuvant therapy. The actual data show quite high specificity and accuracy of both methods, but low negative predictive value (NPV) and sensitivity. It has been suggested that negative results of EBUS-TBNA and EUS-b-FNA in restaging should be confirmed surgically before thoracotomy. There are currently still no accepted standards regarding mediastinal restaging, and many strategies, based on radiological, minimally invasive and surgical techniques like transcervical extended mediastinal lymphadenectomy (TEMLA) are advocated. If the restaging endosonographic biopsies confirm persistent N2 disease, non-surgical treatment is indicated in most of patients. The use of the EBUS-TBNA and EUS-b-FNA in NSCLC restaging is gaining increasing acceptance, due to its efficiency and low invasiveness, particularly as the initial procedure. As the risk of complications related to the EBUS-TBNA and EUS-b-FNA is very low, these procedures may be performed even in the outpatient settings. However sensitivity of both endosonographic methods are reported to be 75-78%, specificity and PPV — 100% and accuracy — 74-77% and NPV — 20-78%. The patients undergoing restaging with endosonography followed by TEMLA the most accurate referral test for EBUS-TBNA and EUS-b-FNA. All mediastinal nodal stations (according to the Mountain-Dresler map), except for the pulmonary ligament nodes (station 9) are removed during TEMLA procedure. In our series in patients who underwent TEMLA preceded by negative EBUS-TBNA and EUS-b-FNA sensitivity for endosonography was 72%-64%, depending on prevalence of mediastinal lymph node metastases 44% and 19% respectively and NPV was high 83%. In our studies, the mean number of biopsied nodes using EBUS-TBNA, EUS-b-FNA and a combination of both techniques were 2.1, 2.4, and 3.7, respectively in comparison with 27.9 as a mean number of nodes removed with the surrounding mediastinal fatty tissue during restaging TEMLA. Such a big difference in the number of examined nodes was the main reason for the difference in the diagnostic yields, especially in sensitivity and NPV among endosonograpic methods and TEMLA (64% vs 96%

and 82 vs 98%, respectively). Eventhough the results promote maximally invasive surgical techinques as TEMLA over endosonography for NSCLC restaging, EBUS-TBNA and EUS-b-FNA or both seem to be the method of the first choice. In the era of induction immunotherapy combined with chemotherapy very little is known about utility of all invasive techniques for restaging purposes.

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