

## **The role of Endobronchial Ultrasound combined with Transbronchial Needle Aspiration (EBUS-TBNA) in the diagnosis of mediastinal lesions**

Presenting author Marcia Jacomelli (Hospital Israelita Albert Einstein, Brazil), Juliana P. Franceschini (Hospital Israelita Albert Einstein, Brazil), Lunis Suzuki (Hospital Israelita Albert Einstein, Brazil), Christina Shiang (Hospital Israelita Albert Einstein, Brazil), Ricardo Sales dos Santos (Hospital Israelita Albert Einstein, Brazil).

**BACKGROUND:** Mediastinal lesions are commonly evaluated by imaging methods. Although highly sensitive, images are not specific for diagnosis. Clinical suspicion of active mediastinal disease, related to cancer or infectious/inflammatory pathologies, requires biopsy to establish the therapeutic approach. TBNA is a recognized method to collect tissue from the mediastinum; it is usually guided by flexible bronchoscope under direct visualization of the puncture site or guided by endobronchial ultrasound (EBUS-TBNA). Surgery and mediastinoscopy are well established methods for biopsies; however, they are more susceptible for complications than EBUS-TBNA. Since 2013, EBUS-TBNA has been used at our institution; but there is little literature data on the accuracy of the method in Brazil. In this study we evaluate the use of EBUS-TBNA in suspected malignancy or benign mediastinal lesions. **METHODS:** This is a retrospective review of cases where EBUS-TBNA was performed between June 2013 and December 2015. Abnormal lymphnodes or mass were detected by chest CT and/or PET-CT. All cases were performed by experienced interventional pulmonologists or thoracic surgeons. Rapid on-site evaluation (ROSE) of fine needle aspiration (FNA) samples was used. Analyses were complemented by an experienced pathologist. **RESULTS:** Forty seven patients (28 males, 19 females), mean age 60 years (range: 21-89), underwent EBUS-TBNA. The exam was indicated for suspicion of malignancy in 39 patients, diagnosis and/or staging of lung cancer in 23, and suspicion of malignancy recurrence in previously treated 16 patients. Benign diseases were the hypothesis in 8 patients. There was enough material for analysis in 44 patients (93.6%). Disease was confirmed in 17 of 23 with suspicious of node metastatic lung cancer, 8 of 16 with suspicious of malignancy recurrence and 8/8 with suspicious of benign diseases (sarcoidosis, silicosis, bronchiolitis or infection). No complications occurred. **CONCLUSIONS:** EBUS-TBNA is been safe and accurate in our institution. Other invasive techniques such as VATS or mediastinoscopy should be reserved for patients with inconclusive EBUS-TBNA.