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## Our Three Year EBUS and EBUS-Elastography Experience

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**Objectives:** Transbronchial needle aspiration (EBUS-TBNA) with endobronchial ultrasonography is a minimally invasive method for pathological examination of intrathoracic lymphadenopathy (LAP) and for the staging of lung cancer. Our aim is to share our EBUS experience in the presence of mediastinal lymphadenopathy and mass.

**Methods:** In our study, a retrospective analysis of 763 stations (LAP, mass) belonging to 358 patients undergoing EBUS-TBNA in a 3-year period was performed. The pathological lymph node was defined as > 1 cm diameter or SUV> 2.5. Pathology results, aspiration lymph node stations, number of aspiration, lymph node diameter, morphological and elastographic characteristics were recorded with demographic and clinical information. As the stiffness ratio (strain ratio) increased and the color score (from 1 to 4) increased, the tissue was classified as harder and with high malignancy potential.

**Results:** Of the 358 cases, 214 were male (59.8%). The mean age of the males was 64±12 years and the mean age of women was 60±13 years (p=0.007). EBUS procedure was performed under general anesthesia in 193 cases and conscious sedation in 165 cases. EBUS was performed in 271 patients for diagnostic, in 25 patients for staging, in 60 patients for diagnostic and staging purpose, and in 2 patients for mutation analysis that would affect treatment choice. The most frequently sampled stations were 29.5% right lower paratracheal and 29% subcarinal lymph nodes. In all stations, 4.3% (n=33) inadequate material and 39.4% (301) malignant lesions were detected. In comparison of malignant and benign lesions; SUV value (11.9±7.2 vs 6±5.2, p <0.001), elastography color score (3.1±0.9 vs 2.2±1.1, p <0.001), and strain ratio (21,6±30,6 vs 5,3±16,9, p <0.001) of malignant lesions were significantly higher than benign lesions. The histology of malignant lesion with the highest strain ratio was breast cancer, although the number of breast cancer cases in the study was low, and this was followed by primary lung adenoca and NSCLC.

**Conclusion:** EBUS can be used effectively in the diagnosis of mediastinal lesions. With EBUS-elastography, malignant lesions are found to have a high color score and a high strain ratio. Therefore, it was thought that it might guide the selection of the lesion to be targeted.

**Keywords:** EBUS-TBNA, lung cancer, sarcoidosis, lymphadenopathy