EARLY EXPERIENCE WITH ENDOBRONCHIAL ULTRASOUND-GUIDED TRANSBRONCHIAL NEEDLE ASPIRATION IN A THORACIC SURGERY CENTER

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BACKGROUND:

Endobronchial ultrasound with transbronchial fine needle aspiration (EBUS-TBNA) is recognized as a minimally invasive procedure for the diagnosis of mediastinal pathologies and has replaced the use of mediastinoscopy in thoracic surgery. EBUS is recommended as a first-choice procedure for mediastinal staging in lung cancer and lymph node neoplasms.
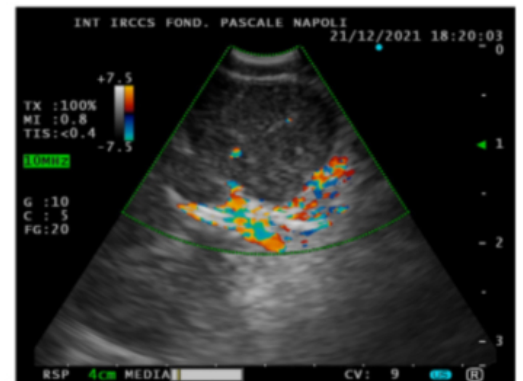
METHODS:

We evaluated the results on the initial experience of a single center with EBUS-TBNA in our thoracic surgery department. We started, after a training period, to perform EBUS-TBNA procedures on February 2021. Up to February 2022 we performed 80 procedures. The main indication for the procedure was suspected non-lymphomatous malignant tumor in the intrathoracic lymph nodes on computed tomography (CT) or positron emission tomography (PET) imaging. All procedures were performed under deep sedation in the operating room. All aspirated samples were obtained with a 22 gauge needle and were prepared on slides for cytology examination and fixed in 10% formalin for cell block. No complications related to the procedure were found

RESULTS:

From February 2021 to February 2022, 80 patients were submitted to EBUS-TBNA. Number of nodal stations punctured was 125 with a mean of 2.25 punctures per patient. Diagnosis of malignancy was obtained in 54 patients (67.5%) and in 8 cases a nodal metastasis from an extrathoracic primary tumor was diagnosed. Sensitivity, specificity and diagnostic accuracy were 94%, 100% and 95% respectively. Negative predictive value was 92% and positive predictive value (PPV) was 100%. When molecular tests were requested, mutational analysis was successfully performed on cell block derived material in 43 out of 45 cases (95.7%).