

Published in *Gastrointestinal Endoscopy*, Vol. 91, Issue 6, AB3 :
**Transesophageal EUS-Guided Core Biopsy of Lung Masses Using
 22G Franseen-Tip Needle - Initial Experience**

Author(s): Petko Karagyozov*, Irina Boeva, Ivan Tishkov, Tsvetan R Minchev, Polina Dakova
 Interventional Gastroenterology, Acibadem City Clinic Tokuda Hospital, Sofia, Bulgaria
 Abstract # Su12 1 from DDW® 2020

Introduction: EUS is a well established modality for evaluation and sampling of solid and cystic lesions in the abdominal cavity and for screening patients with lung cancer for mediastinal lymph node metastasis. The utility of EUS- guided transesophageal core biopsy of lung tumors has been rarely investigated. Most prior reported cases were performed with fine-needle aspiration or with smaller caliber FNB- needles.

Objectives: To evaluate the diagnostic utility and safety of transesophageal EUS-guided core biopsy of pulmonary tumors using 22G Franseen-tip needle.

Methods: Data was collected retrospectively from January 2019 to October 2019. All the patients had pulmonary masses close to or abutting the esophagus, detected on CT-scan. They were referred for EUS- guided biopsy after failure of bronchoscopy to establish tissue diagnosis or judged as unsuitable for bronchoscopy due to the location. Patients underwent endoscopic ultrasound with a linear scope (Fujifilm EG-580UT) and fine needle biopsy using 22G Acquire needle (Boston Scientific Corp.). The obtained material was assessed visually by the endoscopist without onsite cytologist.

Results: Eleven patients (7 men, 4 women) underwent EUS-guided transesophageal core biopsy of lung masses during the study period. The procedure yielded tissue for histologic diagnosis in 100% of patients. Immunohistochemical analysis was possible in all cases. Non-small-cell lung cancer was proven in seven patients, small-cell lung cancer in two, metastatic lung disease in one and mesothelioma in one. No complication was encountered during the first 48 hours and after 30 days follow-up.(Table 1)

Conclusions: EUS- guided core biopsy of lung masses using 22G Franseen-tip needle is safe and established histologic diagnosis in all patients in this study. In cases of accessible lesions this procedure could be discussed as first-line diagnostic tool.

Age	Gender	Tumor diameter (mm)	Number of passes	Histology
70	F	45	3	Small-cell LC
65	M	70	4	Small-cell LC
72	M	75	4	Mesothelioma
57	F	50	5	Metastasis (ovarial Ca)
70	F	75	4	Non-small-cell LC
81	F	60	3	Non-small-cell LC
60	M	65	3	Non-small-cell LC
60	M	50	3	Non-small-cell LC
86	M	55	4	Non-small-cell LC
66	M	60	3	Non-small-cell LC
73	M	50	2	Non-small-cell LC

Table 1 Results

To read the abstract, visit:
[https://www.giejournal.org/article/S0016-5107\(20\)32357-9/fulltext](https://www.giejournal.org/article/S0016-5107(20)32357-9/fulltext)

WHY IT'S RELEVANT

The EG-580UT Curved Linear EUS scope was utilized in EUS-guided transesophageal core biopsy to assess safety and histological diagnosis. In cases of accessible lesions this procedure could be discussed as first-line diagnostic tool.

Key Takeaways:

1. The procedure yielded tissue for histologic diagnosis in 100% of patients.
2. This procedure aided in the diagnosis to patients referred after failure of bronchoscopy to establish tissue diagnosis or judged as unsuitable for bronchoscopy due to the location.

Digestive Disease Week® (DDW®) is the largest international gathering of physicians, researchers and academics in the fields of gastroenterology, hepatology, endoscopy and gastrointestinal surgery. Jointly sponsored by the American Association for the Study of Liver Diseases (AASLD), the American Gastroenterological Association (AGA) Institute, the American Society for Gastrointestinal Endoscopy (ASGE) and the Society for Surgery of the Alimentary Tract (SSAT), the meeting showcases more than 5,000 abstracts and hundreds of lectures on the latest advances in GI research, medicine and technology. More information can be found at www.ddw.org.

DDW Administration had no influence on the selection of the abstracts and/or content included in this event. DDW LLC shall not be liable for any direct, indirect, punitive, consequential, or other damages in any way arising or resulting from the Event or the use of information or materials from DDW sessions by any institution. Should any claim or suit be brought against DDW LLC arising from an Event, the institution shall indemnify and hold DDW LLC harmless for any damages, liability, and costs, including attorney fees, suffered or incurred by DDW LLC in defense and satisfaction thereof.