



Pancoast tumor approach through oesophagus



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ABSTRACT

Patient with Pancoast Tumor usually present in advanced stage of the disease which requires chemotherapy and radiotherapy as options of treatment. Histologic confirmation is a key for further treatment of these patients. Normally in bronchoscopy the lesion can't be visualised and in result making biopsy difficult to perform. Transthoracic biopsy through computed tomography poses anatomic difficulties and not always the pulmonary lesion can be reached.

We report a case of pancoast tumor in a 68 year old male who presented with left arm pain and upper lobe increased density mass in chest x ray. Computed tomography confirmed an upper lobe mass of the left lung with invasion of the chest wall. It was successfully diagnosed with biopsy taken through the oesophagus of intrapulmonary mass with the EBUS bronchoscope (EUS- B FNA). No complication were observed during and after the procedure.

To our knowledge this is the first case of making the diagnosis of lung carcinoma Pancoast tumor using EBUS bronchoscope with approach through oesophagus (EUS-B FNA). There may be a role in using EBUS specifically to diagnose a pancoast tumor in the right patient population.

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1. Introduction

Superior sulcus carcinomas are rare and account for less than 3–5% of all lung carcinomas however they pose special diagnostic and therapeutic challenges to thoracic oncologists, surgeons and radiotherapists [1]. Pancoast tumors are a special and unique subset of lung carcinomas which are located in the apex of the lung and invade through tissue contiguity the apical chest wall and the structures of the thoracic inlet (parietal pleura, 1st and 2nd ribs or periosteum and adjacent 1st and 2nd vertebral bodies, the lower nerve roots of the brachial plexus, the upper sympathetic chain and stellate ganglion, the subclavian vein and artery), producing that way a special clinical picture that is well known in the medical literature as the Pancoast-Tobias or Pancoast syndrome [2].

2. Case

A 68 year old man who is a smoker presented to hospital with a two month history of left arm pain. He had no other respiratory symptoms or any symptoms referable to other systems. He wasn't on any medication at presentation. The past history was insignificant.

Clinical examination was within normal with no palpable peripheral lymph nodes or skin lesions. The patient's pulse oximetry was 97% on room air, blood pressure was 120/75 mmHg. Laboratory testing was unremarkable with normal values. Pulmonary function test were within the predictive values. A chest X-ray (Fig. 1) and a chest CT (Fig. 2) were performed.

A left upper lobe mass was noted on x ray and confirmed with computed tomography. Regional anaesthesia with topical lidocaine of the oropharyngeal region followed by flexible bronchoscopy was performed. Bronchoscopy resulted without pathological findings. Subsequent sedation with midazolam intravenous and passage of EBUS bronchoscope through oesophagus continued. After complete evaluation of the mediastinum a mass was noted on the left apex of the lung compatible with the findings of the computed tomography and biopsy was performed with 22 gauge needle EUS - B FNA (Fig. 3). Aspirated material was evaluated for Cytology on site (ROSE). The study of the aspirated material resulted in prominent

Abbreviations: EBUS, Endobronchial ultrasound; EUS-B FNA, Oesophageal ultrasound fine needle aspiration; ROSE, Rapid on site cytologic evaluation; NSCLC, Non small cell lung carcinoma.

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Fig. 1. Left upper lobe increase densi.

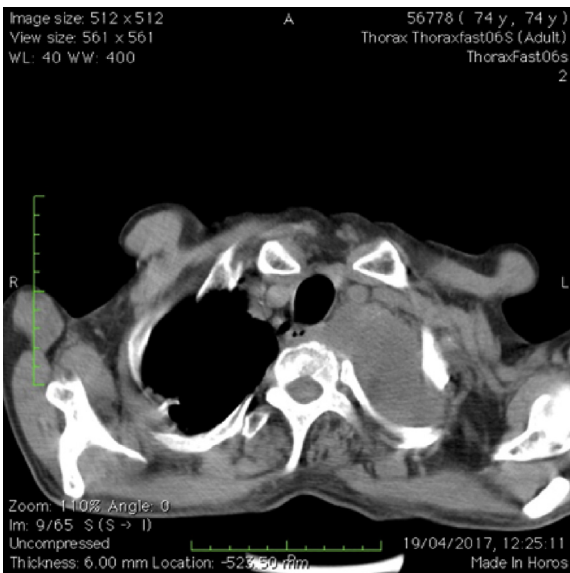


Fig. 2. Left upper lobe mass.

atypic and cohesive grouped cells with pleomorphism of the nuclei and evident nucleoli. These findings were consistent with NSCLC in favour of adenocarcinoma (Fig. 4). No complication were noted

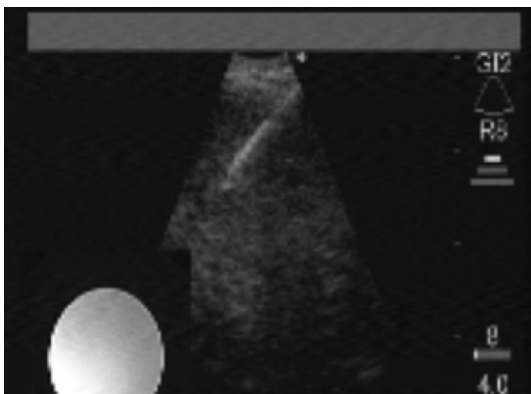


Fig. 3. EUS -B needle passage.

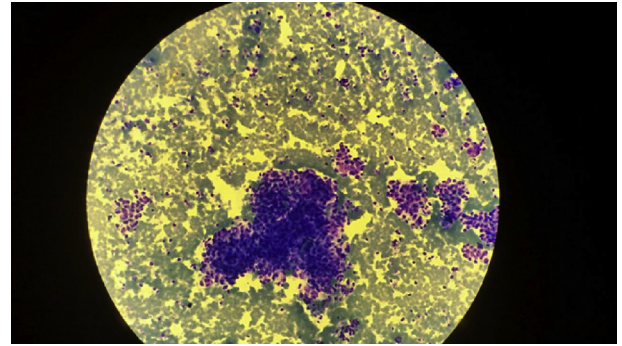


Fig. 4. NSCLC adenocarcinoma.

during and after the procedure.

The diagnosis of adenocarcinoma of the lung was done. Patient was staged to T 3 N 0 M0 stage IIB (TNM 7th edition) and was referred to oncologist and radiotherapist for further treatment with chemotherapy and radiation therapy.

3. Discussion and conclusion

Patient with Pancoast tumor usually present in advanced stage of the disease which requires chemotherapy and radiotherapy as options of treatment. Histologic confirmation is a key for further treatment of these patients. Normally in bronchoscopy the lesion cant be visualised and in result making biopsy difficult to perform. Transthoracic biopsy through computed tomography poses anatomic difficulties and not always the pulmonary lesion can be reached. This is a case of making the diagnosis of lung carcinoma using EBUS bronchoscope with approach through oesophagus (EUS -B FNA) and taking biopsy samples of intrapulmonary lesion. To our knowledge this is the first case of making the diagnosis of lung carcinoma Pancoast tumor using EBUS bronchoscope with approach through oesophagus (EUS -B FNA). There may be a role in using EBUS specifically to diagnose a pancoast tumor in the right patient population.

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The authors declare to have no conflict of interest.

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Eritjan Tashi; Prof. Perlat Kapisyzi and Ilir Peposhi studied the case and performed the procedure. Daniela Xhemalaj and Alma Andoni performed the anatomopathologic examination.

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