CT-Guided Percutaneous Transmediastinal Core-Needle Biopsy

Salvatore Murgo1,2*

1Department of Radiology, CHR Mons-Hainaut, Belgium
2Department of Radiology, Hospital Erasme, Belgium

Clinical Image

A 62-year-old man was referred for lung biopsy under Computed Tomography (CT) for a left hilar mass with a spiculated and infiltrating appearance (Figure 1). The patient presented morbid obesity (177 kg for 192 cm), restrictive lung disease with grade IV dyspnea, sleep apnea syndrome, hyperlipidemia, insulin-dependent type II diabetes, and atrial fibrillation treated with acenocoumarol. The patient had undergone inconclusive biopsies: two under endobronchial ultrasound and one under CT in another hospital. To reduce the risk of pneumothorax, we opted for a transmediastinal approach using an 18 G coaxial core-needle biopsy (Figure 2). To facilitate entry into mediastinum, we:

- injected physiological liquid between the right internal mammary artery and the sternum in order to push back the right lung;

Figure 1: Lung computed tomography: Axial slice with iodine contrast injection displayed in a pulmonary window, showing a spiculated left hilar mass (arrow) infiltrating the vessels at the pulmonary hilum and the mediastinal pleura.

Figure 2: CT fluoroscopy-guided lung biopsy: Transmediastinal approach with an 18 G coaxial core-needle biopsy. To facilitate the entry into the mediastinum, we injected physiological fluid between the right internal mammary artery and the sternum (arrow) to push back the right lung and made a deep inspiration to increase the contact area between the mediastinal fat and the chest wall.
• Made a deep inspiration to increase the contact area between the mediastinal fat and the chest wall.

Histological analysis confirmed a keratinizing squamous cell carcinoma. No complication was observed.