



ΕΤΑΙΡΕΙΑ
ΝΟΣΗΜΑΤΩΝ
ΘΩΡΑΚΟΣ
ΕΛΛΑΔΟΣ

Ultrasound-Guided Transthoracic Biopsy

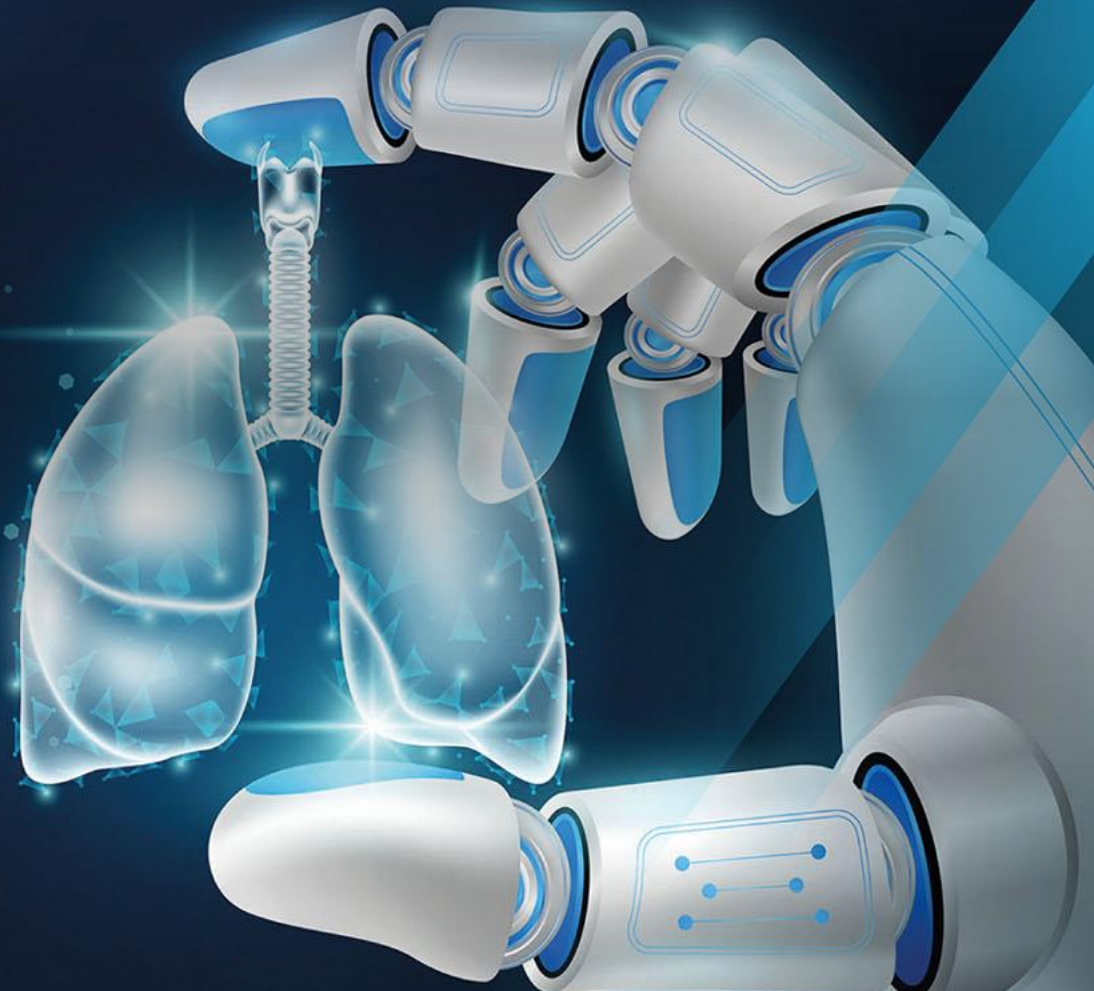
7ο ΠΑΝΕΛΛΗΝΙΟ
ΣΥΝΕΔΡΙΟ
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16-18 ΜΑΪΟΥ 2024

HYATT REGENCY HOTEL
ΘΕΣΣΑΛΟΝΙΚΗ

ΔΡ. ΗΡΑΚΛΗΣ ΤΥΤΟΠΟΥΛΟΣ ΕΠΕΜΒΑΤΙΚΟΣ ΠΝΕΥΜΟΝΟΛΟΓΟΣ

ΔΙΕΥΘΥΝΤΗΣ ΠΝΕΥΜΟΝΟΛΟΓΙΚΗΣ ΚΛΙΝΙΚΗΣ @ ΜΟΝΑΔΟΣ ΕΠΕΜΒΑΤΙΚΗΣ ΠΝΕΥΜΟΝΟΛΟΓΙΑΣ ΙΑΤΡΙΚΟΥ ΔΙΑΒΑΛΚΑΝΙΚΟΥ ΘΕΣ/ΝΙΚΗΣ



Ultrasound-Guided TransThoracic Biopsy

US-TTB has an acceptable diagnostic yield and is a cost-effective alternative to CT-TTB

The complication rate is generally lower than for CT-TTB. US-TTB should thus be preferred whenever a lesion can be visualized by the use of ultrasound

However, a lesion in the central part of the lungs or peripheral but with no contact to the visceral pleura, will not be visualized with ultrasound due to the ultrasound wave's reflection in air between the lesion and the visceral pleura

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Lung

Peripheral mass or nodule

Mediastinum

Mass in the anterior mediastinum

Pleura

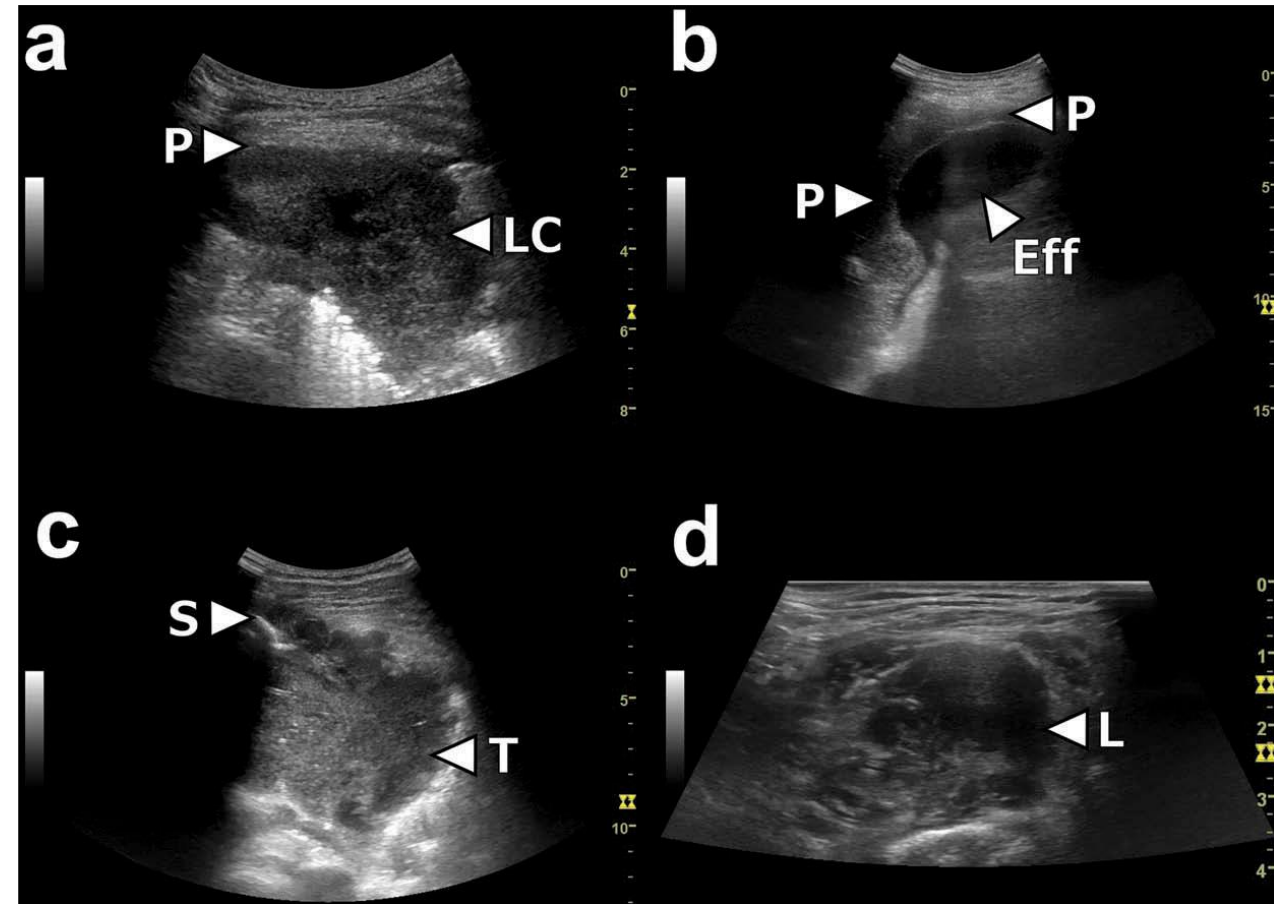
Thickening or pleural infection

Chest wall

Tumor or suspected infection

Lymph nodes

Suspected malignancy, infection or interstitial lung disease involving infraclavicular/supraclavicular/axillary or internal mammary lymph nodes

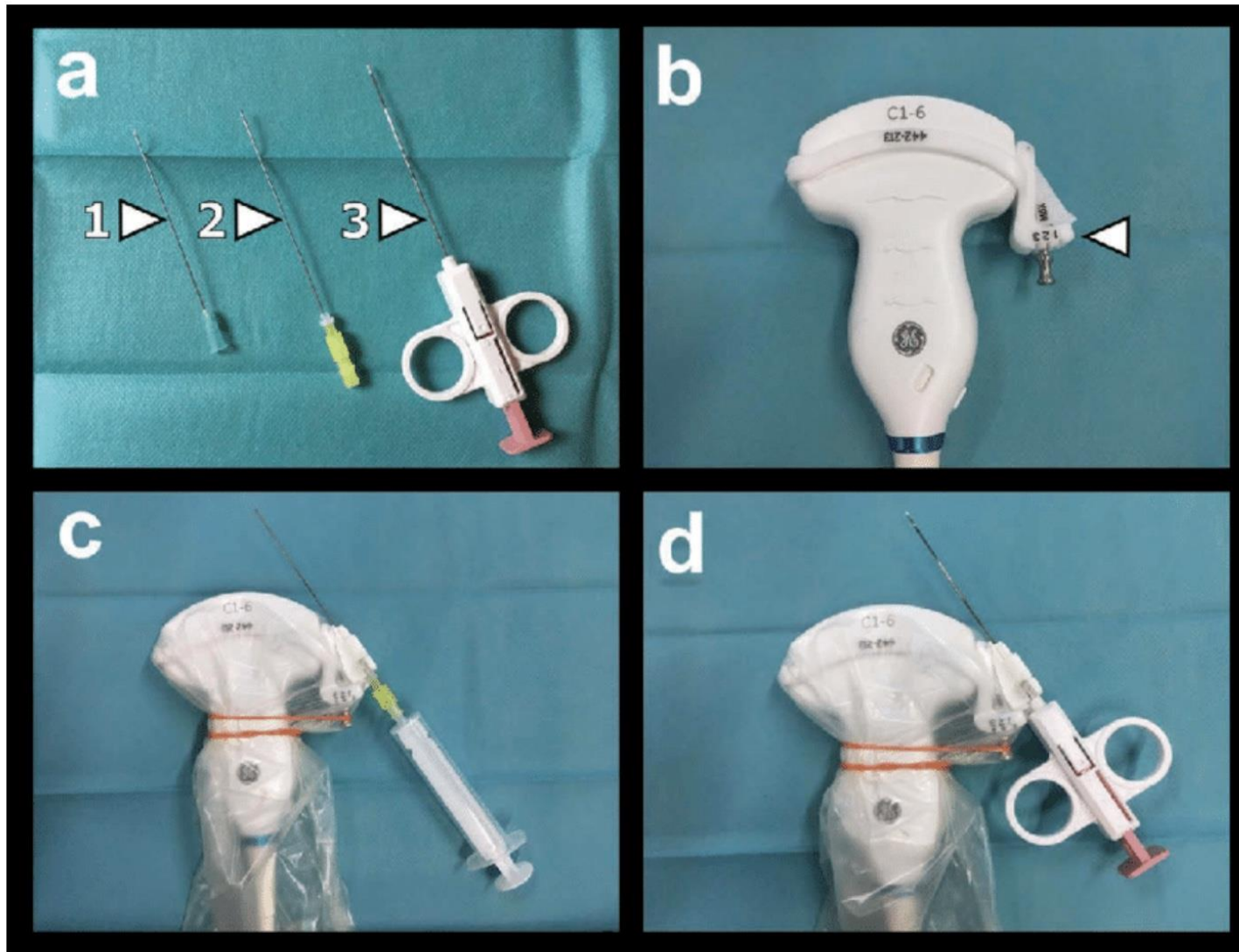


- A hypoechoic, peripheral lung consolidation (LC) can be seen just below the pleural line (P)
- A crescent-shaped thickening of the parietal pleura (P) and a pleural effusion (Eff) can be seen
- Lateral and profound of the sternum (S) a tumor (T) is present in the anterior mediastinum
- An enlarged, ill-defined supraclavicular lymph node (L)

Contraindications

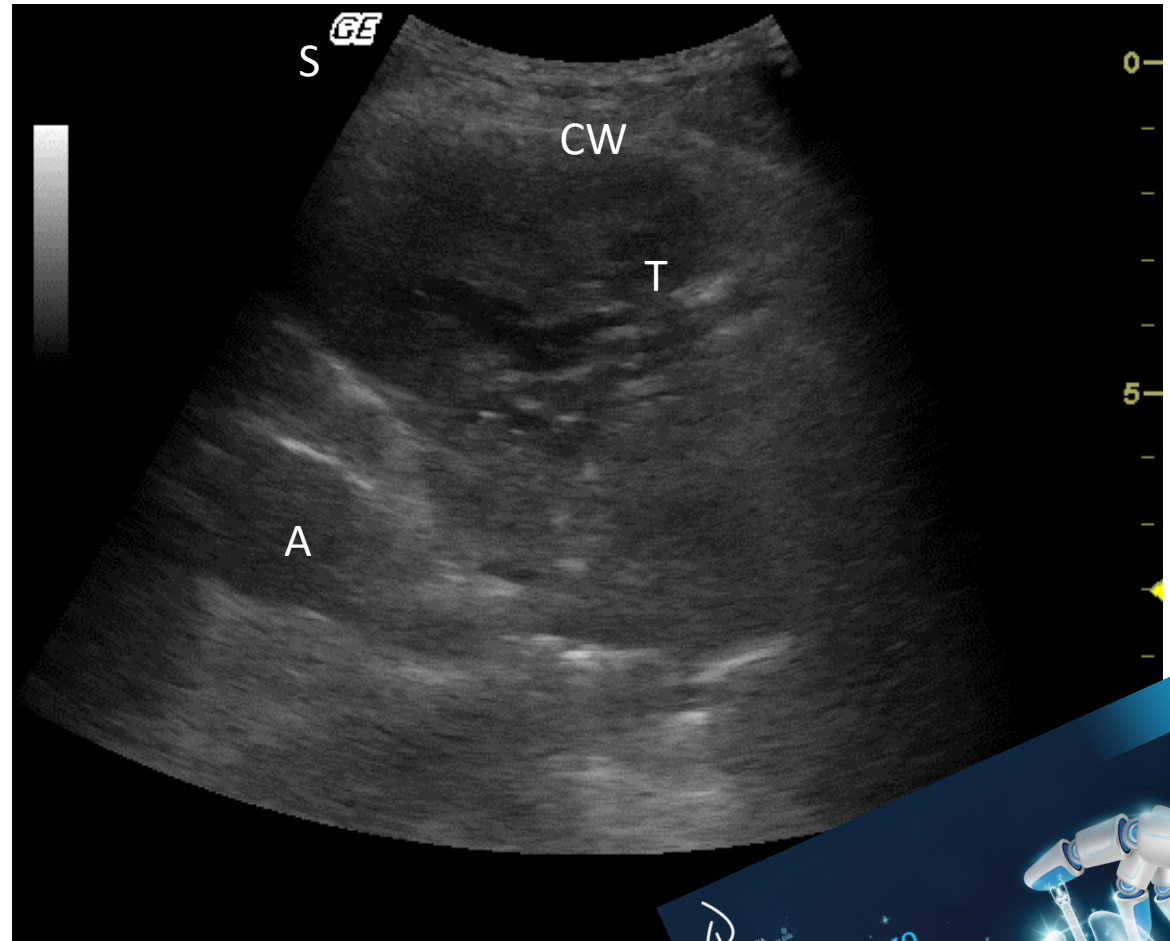
- Coagulopathies
- Severe heart failure
- Unstable angina
- Symptomatic cardiac arrhythmias
- Recent myocardial infarction
- Unstable bronchial asthma
- Severe impairment of lung function
- Respiratory failure
- Severe untreated hypertension
- US-TTB can be performed on patients with mechanical ventilation, but the potential clinical impact of obtaining the biopsy should outweigh the increased risk of pneumothorax and close monitoring is warranted
- US-TTB can be performed immediately after endoscopy





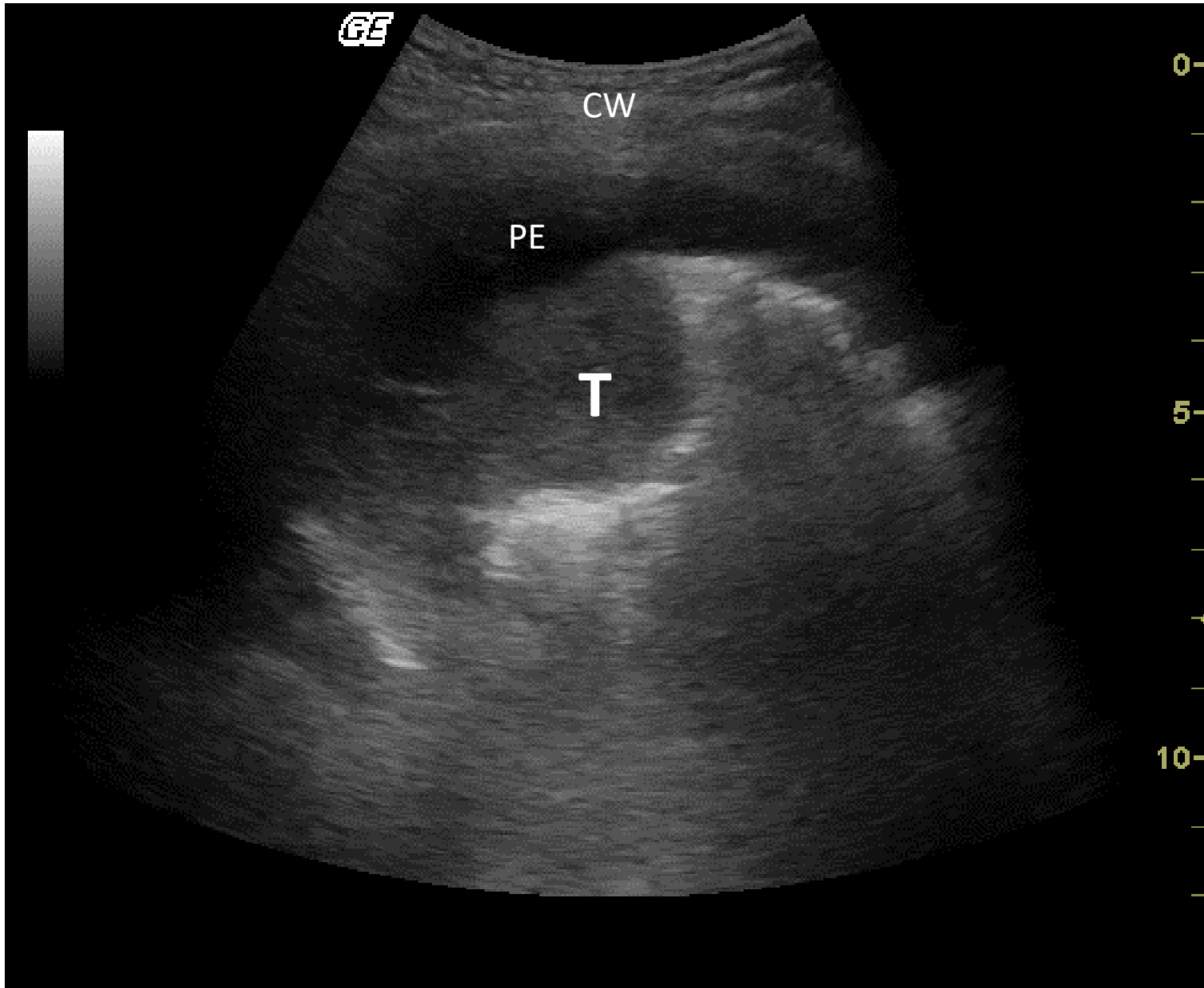
Equipment used for US-TTNB. (a) Examples of biopsy needles: A 21G conventional Chiba needle (1), a 20G coated Chiba needle (2), an 18G cutting needle (3). (b) Ultrasound transducer with a biopsy guide system. This guide system has three different adjustable needle angles. (c) Ultrasound transducer with biopsy guide, sterile covering and a 20G coated Chiba needle and syringe. (d) Ultrasound transducer with biopsy guide, sterile covering and an 18G cutting needle.





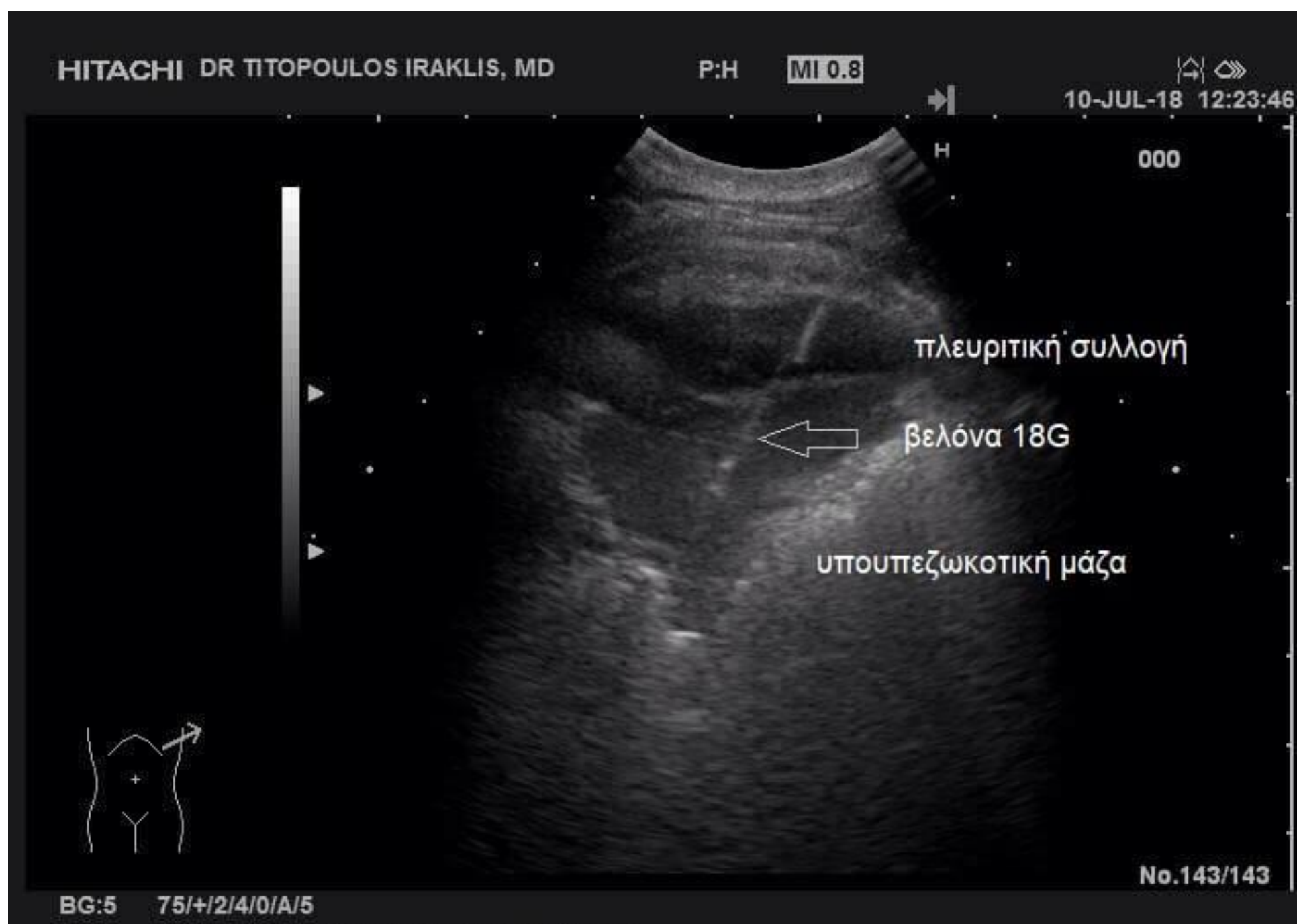
CW: Chest Wall, S: Sternum, T: Tumor, A: Aorta





CW: Chest Wall
PE: Pleural Effusion
T: Tumor







ΔΙΑΤΟΙΧΩΜΑΤΙΚΗ ΒΙΟΨΙΑ
ΜΕ ΤΗΝ ΚΑΘΟΔΗΓΗΣΗ ΥΠΕΡΗΧΩΝ
ΓΙΑ ΤΗΝ ΑΜΕΣΗ ΔΙΑΓΝΩΣΗ
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ΗΡΑΚΛΗΣ ΤΙΤΟΠΟΥΛΟΣ, MD, Ph.D.
ΕΠΕΜΒΑΤΙΚΟΣ ΠΝΕΥΜΟΝΟΛΟΓΟΣ





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