

Transvenous Biopsy of Pericaval Lymph Node After Nondiagnostic Sampling in Patient With Pancreatic Mass



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Purpose:

- To highlight the utility of transvenous lymph node biopsy under intracardiac echocardiography (ICE) guidance in a patient with pancreatic head mass and nondiagnostic prior tissue sampling

Case

- 78-year-old male with past medical history of atrial fibrillation on Eliquis, prostate cancer, hypertension, hyperlipidemia, and type 2 diabetes mellitus
- Presented with newly identified pancreatic head mass
- Reported one month of progressive fatigue, malaise, decreased oral intake, and 15–20 lb unintentional weight loss
- Associated symptoms: mild abdominal discomfort, dark urine, and clay-colored stools
- ERCP attempted twice but unsuccessful due to J-shaped stomach
- Transferred to outside facility where biliary stent placement and EUS-guided fine-needle aspiration (EUS-FNA) of pancreatic mass were performed
- Cytology from FNA was nondiagnostic
- Subsequent CT-guided percutaneous biopsy of a pericaval lymph node adjacent to the biliary stent was nondiagnostic
- Given the clinical need for definitive diagnosis, a transvenous biopsy of the pericaval lymph node was performed

Initial Workup

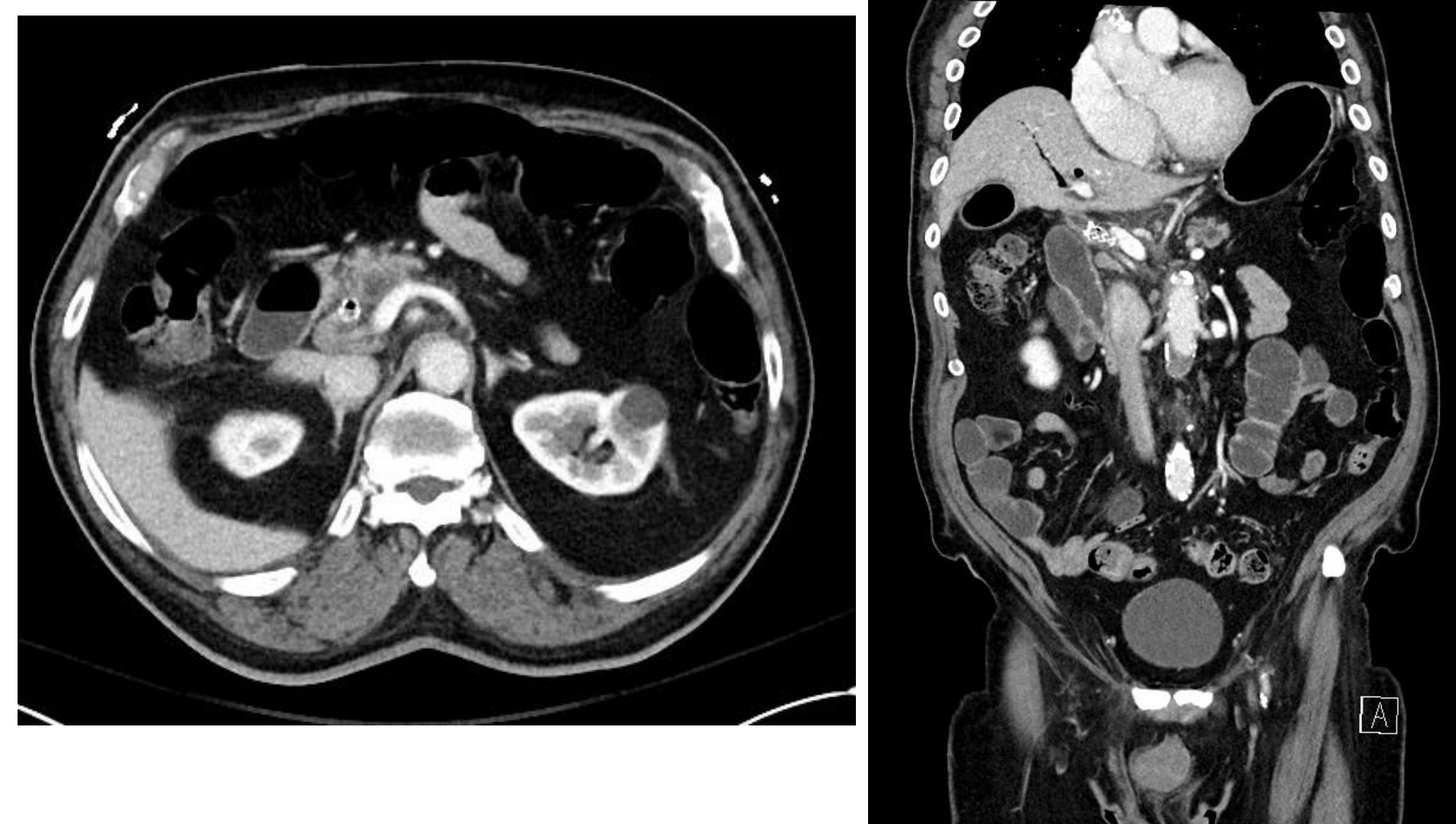


Figure 1. Axial (A) and coronal (B) CT images demonstrating a pericaval lymph node adjacent to the common bile duct stent, highlighting its anatomic relationship to the biliary system.

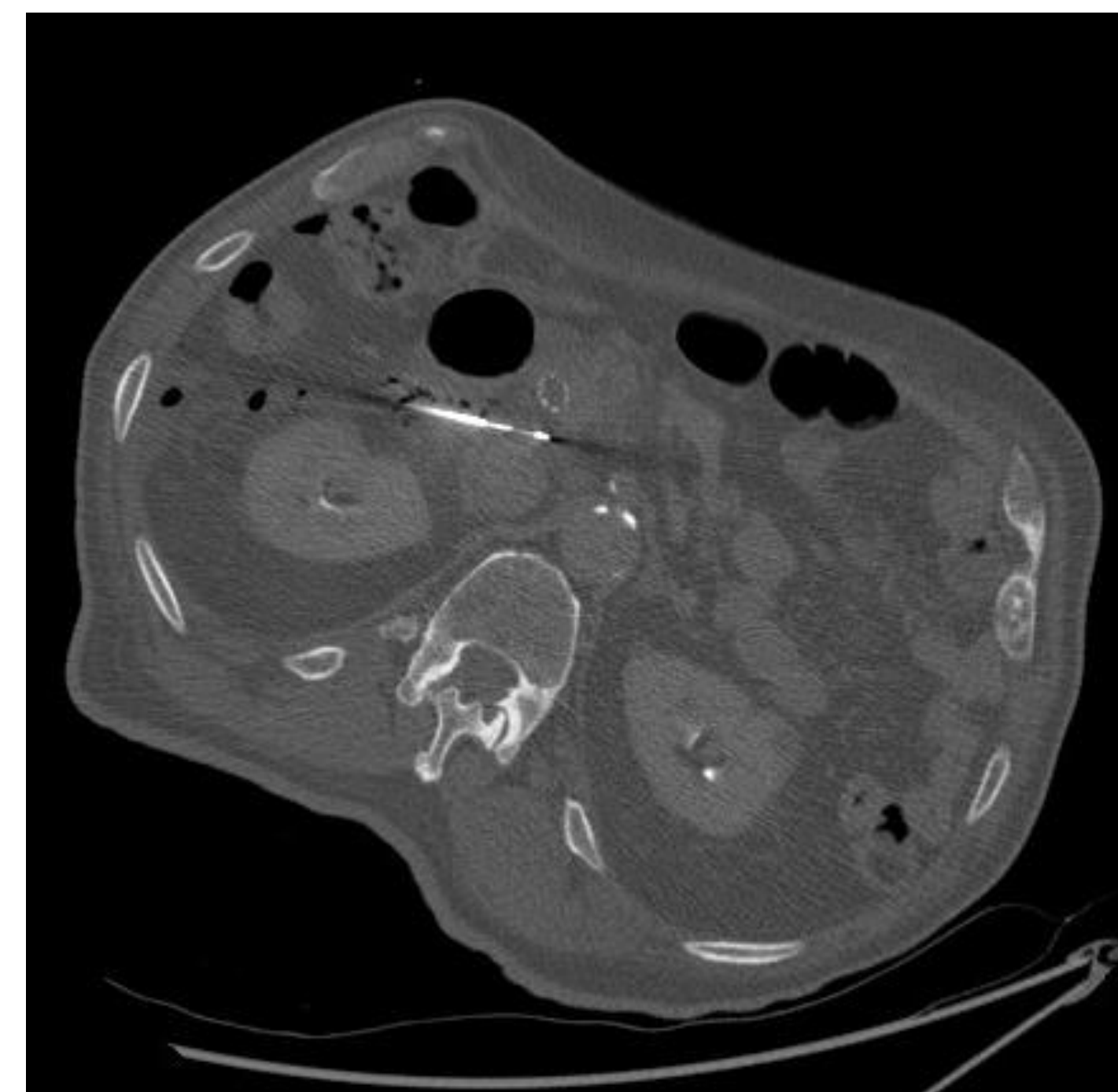


Figure 2. Percutaneous biopsy with the needle deployed between the inferior vena cava and common bile duct stent, which yielded a non-diagnostic specimen.

Transvenous Biopsy of Pericaval Lymph Node

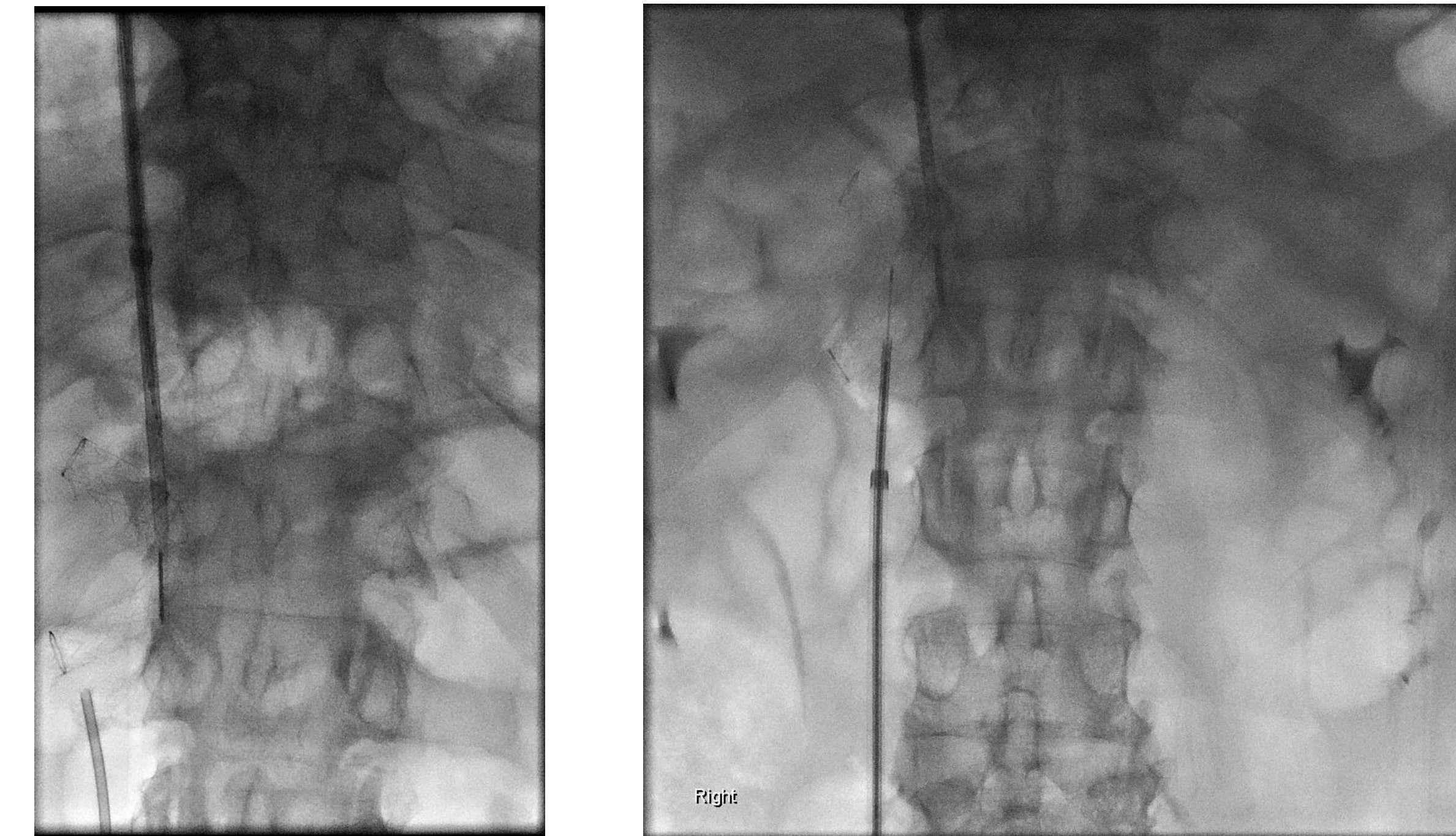


Figure 3. Intraoperative images demonstrating right internal jugular venous access for placement of an intracardiac echocardiography (ICE) catheter and right common femoral venous access for advancement of a transjugular biopsy set, with the pericaval lymph node identified and biopsied under ICE guidance.



Figure 4. Post-biopsy venogram demonstrating no evidence of extravasation.

Results

- Histopathology from the transvenous biopsy confirmed adenocarcinoma
- Post-biopsy venogram showed no extravasation or vascular injury
- Procedure was completed without complication
- Approach avoided repeat non-diagnostic attempts or surgical intervention

Conclusions

- Transvenous lymph node biopsy under ICE guidance is a safe and effective method for tissue acquisition
- Provides a valuable alternative when percutaneous or endoscopic approaches are limited
- Enables diagnostic sampling in challenging anatomic locations adjacent to critical structures
- May reduce the need for repeat nondiagnostic procedures or surgical intervention