

POSTPARTUM CHEST PAIN AND DYSPNEA: CONCURRENT PULMONARY EMBOLISM, DELAYED POSTPARTUM PREECLAMPSIA, AND PERIPARTUM CARDIOMYOPATHY – A CASE REPORT

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BACKGROUND

Chest pain and dyspnea in the postpartum period require prompt evaluation because several life-threatening conditions may present with overlapping clinical features. The simultaneous occurrence of pulmonary embolism (PE), delayed postpartum preeclampsia, and peripartum cardiomyopathy (PPCM) is exceptionally rare and presents a significant diagnostic challenge.



CASE PRESENTATION

A 34-year-old previously healthy woman (G2P2), a former smoker, presented to the emergency department 10 days after an uncomplicated term vaginal delivery with sudden-onset diffuse chest pressure, dyspnea, and occipital headache.

On arrival, she was alert and pale. Blood pressure was 162/107 mmHg, while heart rate, respiratory rate, oxygen saturation on room air, and temperature were within normal limits. Cardiac examination was unremarkable, whereas lung auscultation revealed mild bibasal crackles. Electrocardiography demonstrated normal sinus rhythm without ischemic changes.

Venous blood gases on arrival were within normal limits.

Key laboratory findings included:

KEY LABORATORY FINDINGS

• Hemoglobin / Platelets	Normal / No thrombocytopenia
• Liver transaminases	~5-fold elevation
• hs-Troponin	90 pg/mL
• D-dimer	14 µg/mL
• Urinalysis	No proteinuria

CT pulmonary angiography demonstrated a segmental pulmonary embolism in the right lower lobe together with pulmonary edema. Therapeutic low-molecular-weight heparin, supplemental oxygen, and intravenous furosemide were initiated.

Given the severe hypertension, headache, pulmonary edema, and elevated liver enzymes, delayed postpartum preeclampsia with severe features was suspected, and intravenous magnesium sulfate was administered.

Echocardiography demonstrated left ventricular systolic dysfunction with an ejection fraction of 43%, confirming peripartum cardiomyopathy.

The patient was admitted to the intensive care unit, where anticoagulation and guideline-directed heart failure therapy were continued. She was discharged in good condition.

Follow-up echocardiography six months later demonstrated recovery of left ventricular ejection fraction to 55%.

FINAL DIAGNOSES

1. Pulmonary embolism
2. Delayed postpartum preeclampsia with severe features
3. Peripartum cardiomyopathy

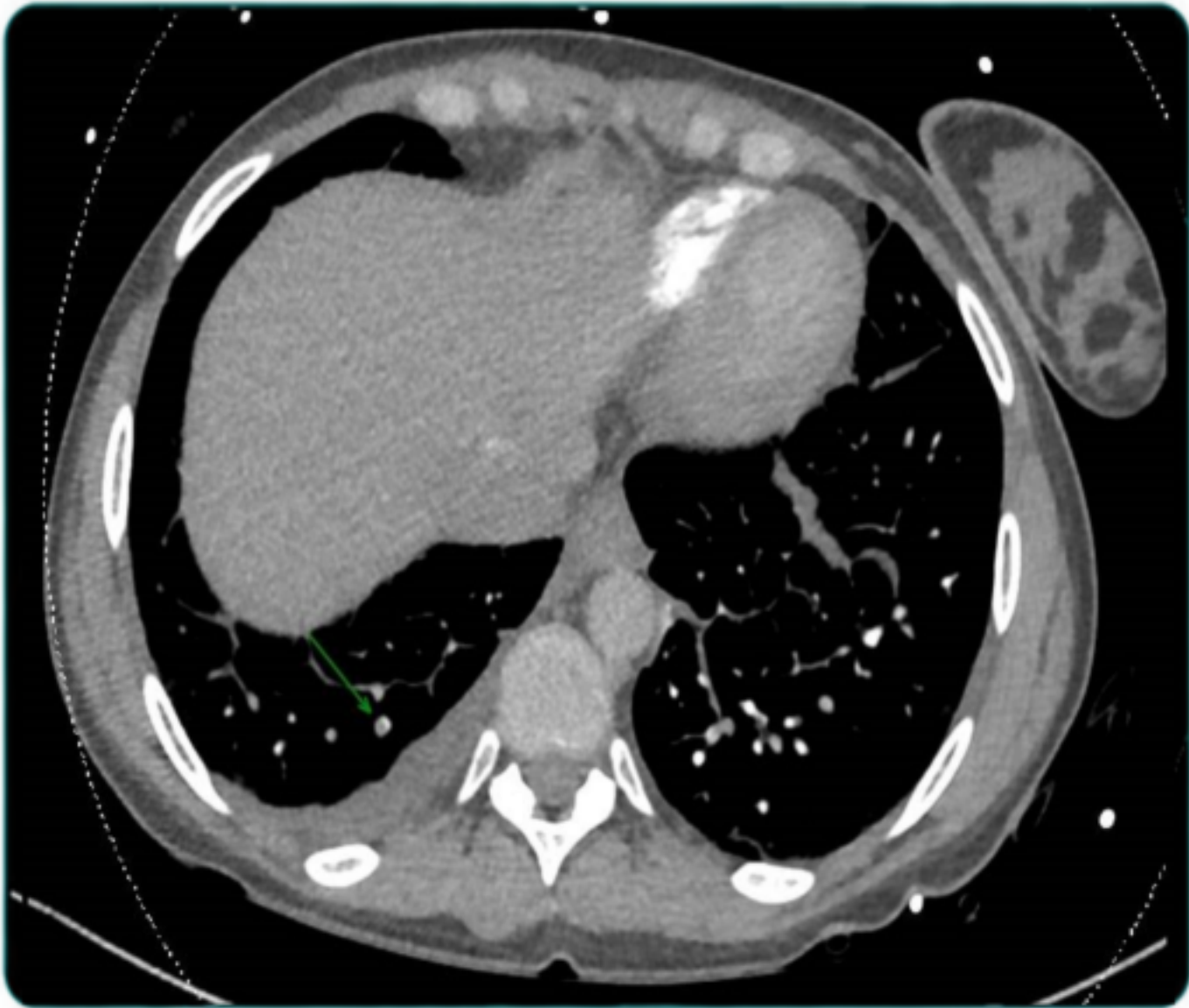


Figure 1. Segmental pulmonary embolism in the right lower lobe pulmonary artery (arrow).

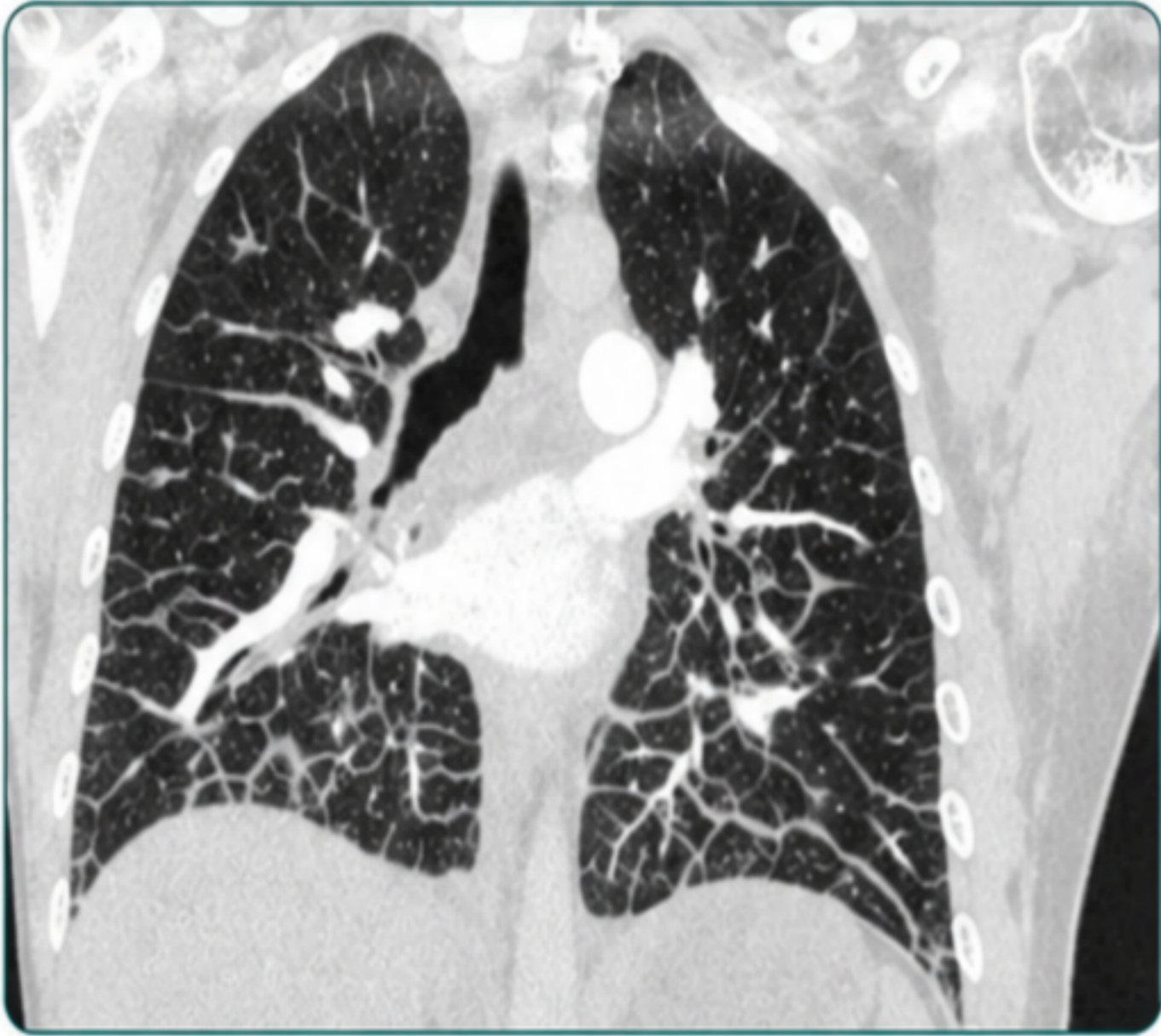


Figure 2. Coronal CTPA reconstruction demonstrating signs of pulmonary edema.



LEARNING POINTS



Postpartum chest pain and dyspnea require a broad differential diagnosis.



The diagnosis of one life-threatening condition does not exclude another.



Delayed postpartum preeclampsia may occur in the absence of proteinuria.



Early recognition of PE, delayed postpartum preeclampsia, and PPCM enables timely multidisciplinary treatment and favorable outcomes.