A Case Report on Unusual Presentation of Pulmonary Embolism

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Case Presentation

A 39-year-old female, previously healthy, presented to the walk in clinic in our health center with a chief complaint of upper abdominal pain for 4 days radiating to the right shoulder and back and aggravated by spicy and fatty food. There was no specific relieving factor and was associated with nausea and vomiting 4 times daily, with vomit containing food no blood in vomitus, and no change in bowel habits.

Review of systems:

Constitutional: No fever, No chills.

Respiratory: Mild shortness of breath mainly with breathing in, not related to excretion. No cough, No wheezing.

Cardiovascular: No chest pain, No palpitations.

Genitourinary: No dysuria, No urinary frequency, No urinary urgency.

Musculoskeletal: No joint pain, No muscle pain.

Neurologic: Alert and oriented

Last menstrual period: 1 week ago

Past medical history: Not known to have any chronic illness.

Drug history: She was taking OCP for menstrual regulation for last 3 months.

Surgical history: No previous surgeries

Allergies: Mild allergic reaction to amoxicillin

Social and family history: Married, lived with her spouse, not smoker nor alcoholic. No family history of chronic condition

On examination:

Vital signs: Heart rate: 80 beats per minute, Blood pressure: 126/90, Oxygen saturation: 100%. Looks in pain.

Abdominal examination: not distended, soft lax abdomen, no tenderness, no organomegaly, negative Murphy's sign.

Patient given analgesia while waiting for the lab results which showed Normal complete blood count (CBC), mild elevated liver function test with no previous report: AST 76 ALT :100 and elevated C reactive protein (CRP):22, therefore, the patient was then transferred to emergency department as case of acute abdominal pain for further investigation and management.

In the emergency department, the patient's condition deteriorated, developing shortness of breath and desaturation. Further investigations revealed a massive pulmonary embolism with right ventricular strain. The patient was therefore admitted to the ICU for treatment with anticoagulation, stabilized and discharged after 1 week.

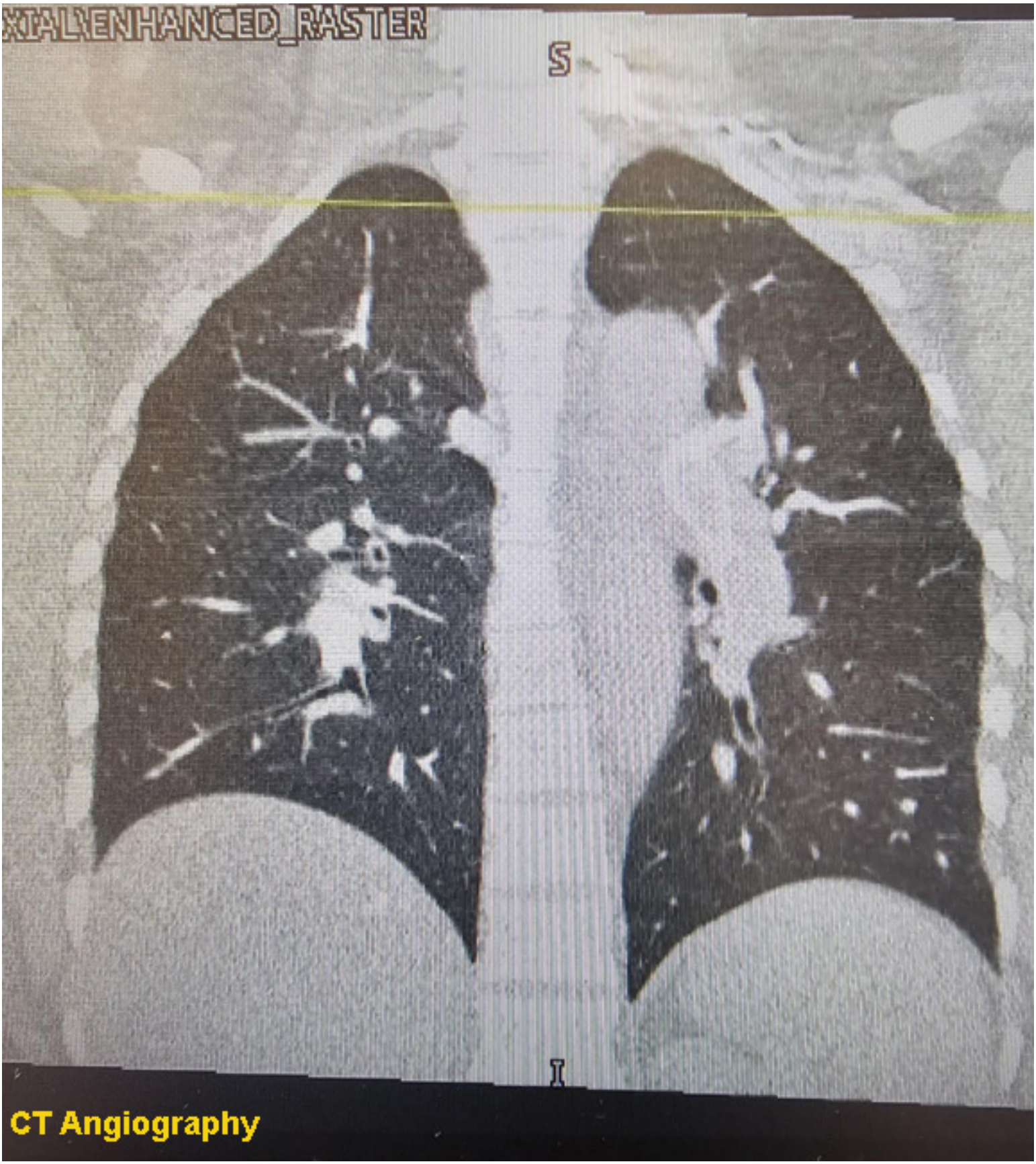
Investigations:

ECG - Sinus rhythm, heart rate-: 99/beat per minute, T inversion II, III, AVF, V3 - V6 D-Dimer: 6.05 mg/L FEU High Troponin-T HS: 44.8 ng/L High

CT pulmonary angiography: features are suggestive of massive pulmonary embolism with features of RV strain.

Ultrasound abdomen:
No obvious sonographic features to suggest cholecystitis or pancreatitis. Common bile duct is not dilated.
Hepatomegaly with moderate liver fatty changes.

Echocardiography:
- Normal global systolic LV function
- The left ventricular ejection fraction M-mode is 61 %.
- Grade 1 diastolic dysfunction (normal left atrial pressure)
- There is mild concentric left ventricular hypertrophy.
- Pulmonary artery pressure is moderately increased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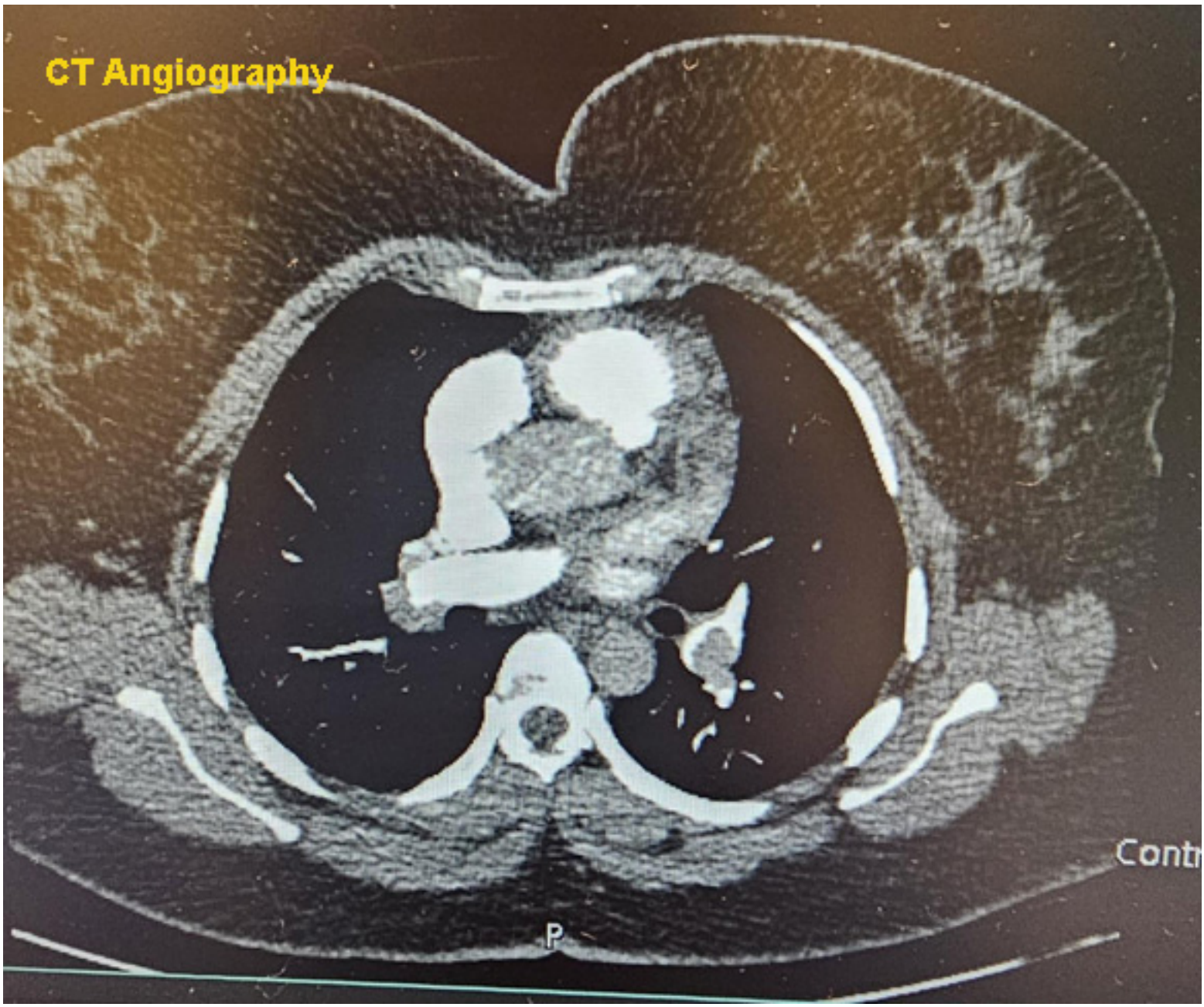
CT Angiography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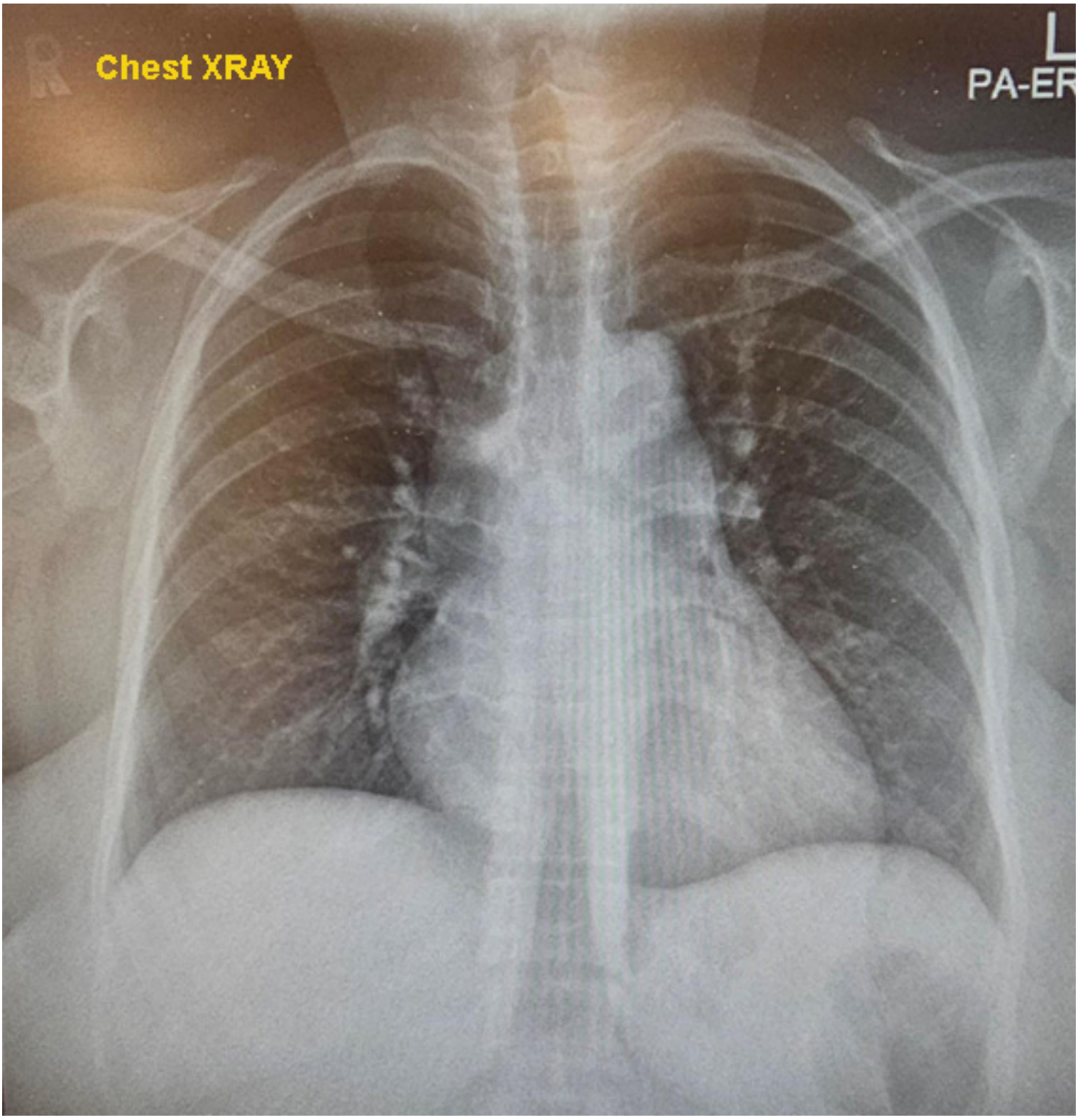
Chest XRAY
PA-ER

Differential diagnosis:
-gall bladder disease
-acute cholecystitis
-acute pancreatitis

Treatment:
Anti-spasmodic and anti-coagulant

Outcome and follow up:
In the emergency department, the patient's condition deteriorated, developing shortness of breath and desaturation. Further investigations revealed a massive pulmonary embolism with right ventricular strain. The patient was therefore admitted to the ICU for treatment with anticoagulation, stabilized and discharged after 1 week.

Discussion

This case illustrates the importance of thorough evaluation and consideration of alternative diagnoses in patients presenting with acute abdominal pain. It emphasizes the need for a comprehensive approach to diagnosis, including interdisciplinary collaboration and appropriate utilization of imaging modalities. This case underscores the importance of maintaining a broad differential diagnosis and considering pulmonary embolism even in the absence of classical respiratory symptoms, to prevent delays in diagnosis and expedite appropriate management.

The consequences of missing pulmonary embolism (PE) can be catastrophic. It is believed to be responsible for 50,000-200,000 deaths yearly. Overall mortality for PEs without treatment is estimated to be 30%. The diagnosis can be elusive since there is no pathognomonic sign or symptom for PE2.

Clinicians often take solace in clinical decision rules in patients without any clear risk factors.

We present a case report on a patient with abdominal pain who was diagnosed with a large PE, highlighting the importance of considering pulmonary embolism early in the differential diagnosis of acute abdominal pain.

References

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