

Images

Saddle pulmonary emboli: an unusual presentation

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A 38-year-old man with a history of polyposis syndrome diagnosed 3 years previously, with poor compliance for follow-up, presented to the emergency department with symptoms of retrosternal chest pain associated with dizziness and shortness of breath. His blood pressure was 94/43 mm Hg, his pulse was 123 beats/min and he had an oxygen saturation of 84% on room air. The patient's initial laboratory results showed a hemoglobin of 80 g/L and blood gas with a pH of 7.23. He had a normal chest radiograph and electrocardiogram, but had an elevated troponin I at 0.12 µg/L. He was given acetylsalicylic acid for suspicion of acute coronary syndrome. On physical examination, the patient was found to have right calf tenderness. With this finding and the presenting symptoms, he underwent computed tomography angiography (CTA) of the chest. The chest CTA showed a massive saddle

embolus with a filling defect completely occluding the right pulmonary artery and extending through the main pulmonary artery segment to involve the left pulmonary artery. There were also diffuse filling defects involving bilateral pulmonary segmental arteries (Fig. 1 and Fig. 2). The patient received alteplase and underwent a workup for a hypercoagulable state. His workup revealed positive anticardiolipin antibodies and factor V Leiden. The Doppler ultrasound of his lower extremities showed an extensive thrombus measuring more than 6 cm extending in the right superficial femoral vein. The patient was then referred for placement of an inferior vena cava filter.

DISCUSSION

Pulmonary embolism, usually accompanied by deep

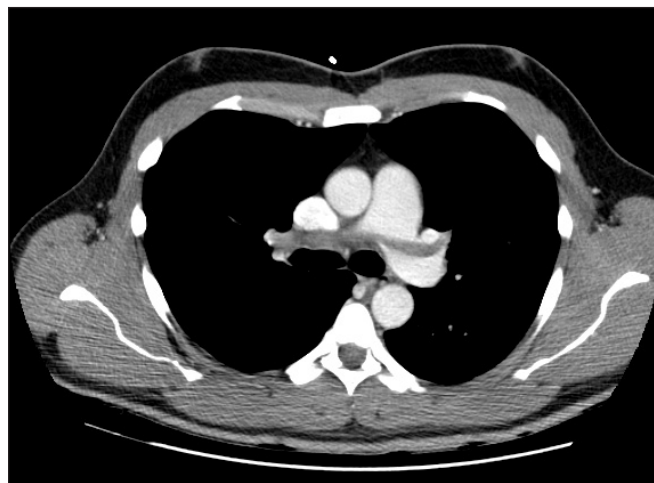


Fig. 1. Computed tomography scan with pulmonary embolism protocol showing entire involvement of pulmonary artery bilaterally, suggestive of saddle emboli.



Fig. 2. Computed tomography scan with pulmonary embolism protocol at the thoracic level showing saddle emboli leading to complete obliteration of the pulmonary arteries.

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venous thrombosis, represents the most common manifestation of the antiphospholipid syndrome (APS) and may be the earliest manifestation of the disease. There is no difference clinically from an embolism in patients without APS. Recurrent pulmonary emboli can lead to pulmonary hypertension, which in severe cases can be associated with tricuspid insufficiency. A variety of patients with APS can present with widespread thrombotic occlusion affecting small pulmonary arteries or capillary lumens of the alveoli. However, involvement

of major pulmonary artery is a rare manifestation. Venous thromboembolism, mainly of the lower extremities, can occur in up to 55% of patients with APS.

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