

Leiomyoma as a cause of thrombotic events in different vascular territories

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DESCRIPTION

Arterial and venous thrombotic events are common and often life-threatening, as their rapid diagnosis is challenging. The case of a sequential venous and arterial thrombotic events is presented here. A woman in her early 50s, with dyslipidaemia and obesity, with complaints of dyspnoea on exertion for a week, presented to the emergency department (ED) with drowsiness, dizziness and blurred vision within only a few hours of evolution. On initial assessment, she was tachypneic, hypertensive, with fluctuating state of awareness, limitation of right eye adduction and anisocoria. During her stay in the ED, she had a sudden decrease in her state of consciousness. Due to the suspicion of stroke, she underwent an angio-CT that confirmed the presence of a thrombus at the top of the basilar artery, without an image of established infarction. She underwent thrombectomy with complete reversal of the neurological deficits ([figure 1A](#)).

Concomitantly, due to respiratory changes, a blood gas analysis was made that revealed hypoxaemia and hypocapnia, while the ECG showed sinus tachycardia. Given these changes, she had a chest angio-CT performed that confirmed the presence of a massive bilateral thrombus ([figure 1B](#)). Along with haemodynamic stability, the patient was admitted to the internal medicine ward for evaluation of predisposing factors for arterial and venous thrombotic events. She underwent a transoesophageal echocardiogram, confirming the presence of a patent foramen ovale (PFO) with a bidirectional shunt, although no intracardiac thrombus was visible.

The lower limbs on Doppler ultrasound revealed a deep venous thrombosis in the left popliteal vein. On examination, a palpable mass in the hypogastrium was noted and the abdominal CT revealed a voluminous uterine mass measuring 12.5 cm × 9 cm × 15.5 cm ([figure 1C](#)). A complete hysterectomy was performed, with histology revealing a leiomyoma. She was in a study that identified prothrombotic risk factors. The search for genetic or inherited thrombophilia was negative: for example, deficiencies of protein C, protein S or antithrombin, as well as factor V Leiden or prothrombin mutation. Common autoimmune disorders such as antiphospholipid syndrome and lupus were also excluded.

The venous system and consequent stasis would have contributed to the onset of thrombotic events in the lower limbs.¹ A paraneoplastic aetiology was ruled out, according to age and current screening recommendations. In accordance with international

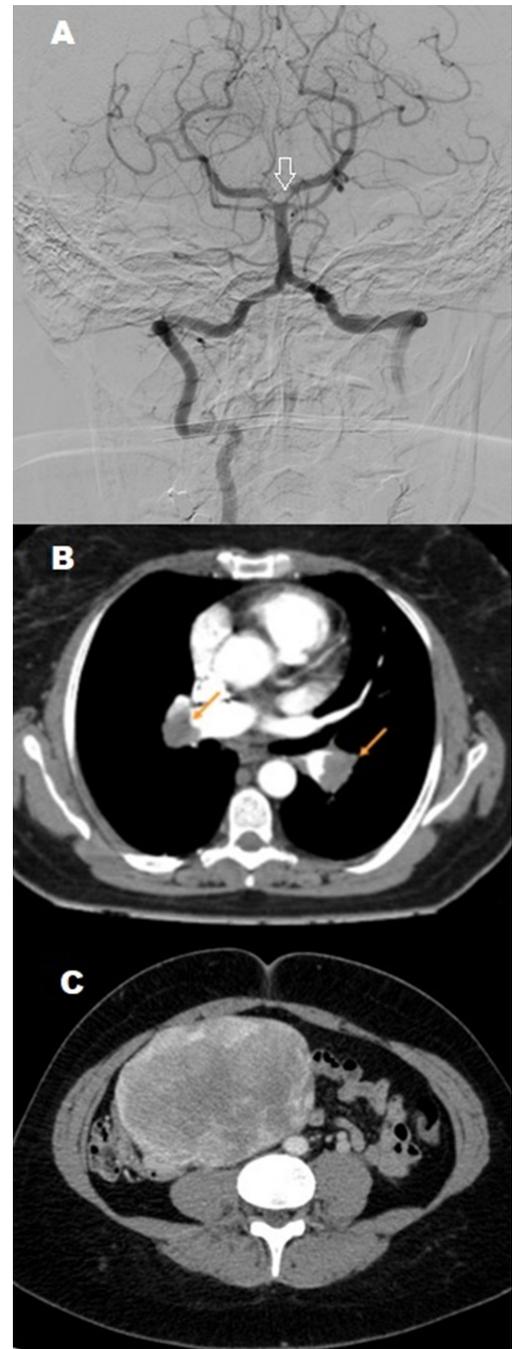


Figure 1 (A) Arterial angiography with a thrombus at the proximal basilar artery. (B) Chest CT angiogram showing a massive bilateral central pulmonary thromboembolism, with extensive filling defects occupying the distal slope of the right and left pulmonary arterial branches. (C) Abdominal CT with a mass in the uterine fundus, 12.5 cm × 9 cm × 15.5 cm, texture diffusely heterogeneous compressing the iliac vessels.



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recommendations, in the presence of a major unprovoked thrombotic event, the patient was treated with anticoagulation therapy for 6 months.² A huge abdominal mass causing venous stasis was the aetiology of the synchronic thrombotic event, with PFO playing a crucial role in the migration of the thrombus, from venous to arterial circulation. PFO exclusion is mandatory when suspected of a stroke of embolic aetiology.³

With this report, the authors intend to raise awareness about the rare presence of sequential venous and arterial thrombotic events. Despite being common pathologies, their concurrent presence is rare, and a high level of suspicion is needed.

Learning points

- ▶ In a patient with synchronous thrombotic events, especially at a young age, the study of prothrombotic risk factors should be exhaustive, and the exclusion of patent foramen ovale (PFO) is mandatory when a stroke of embolic aetiology is suspected.
- ▶ The gold standard for PFO identification and characterisation is the transoesophageal echocardiogram, which impacts not only diagnosis but also closure criteria.
- ▶ The indication for closure of the PFO must be adapted to each patient, as enduring anticoagulation therapy is recommended if no contraindication exists.

Furthermore, it is presented as a paradigmatic case of benign aetiology, causing a synchronic thrombotic event due to the concomitant presence of PFO.

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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