Large saddle embolus during cancer therapy

Timothy J Brown, Saad A Khan

Department of Internal Medicine, The University of Texas Southwestern Medical Center, Dallas, Texas, USA

Correspondence to
Saad A Khan,
Saad.Khan@UTSouthwestern.edu

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DESCRIPTION

A 67-year-old non-smoking man with stage IV (T2N2cM0) p16-positive squamous cell carcinoma of the tongue, undergoing curative-intent hypofractionated radiation as part of a clinical trial, uneventfully received his fourth dose of weekly cisplatin 30 mg/m². Later, he developed sudden onset of diaphoresis and experienced a near-syncope while waiting in his car outside the University Hospital. He spontaneously recovered and decided to drive home. On arriving home, he collapsed inside his doorway. He awoke on the floor, gasping for air. Emergency medical assistance transported him to a local emergency department, where he endorsed chest pain, left leg pain and shortness of breath. Vital signs on presentation showed a blood pressure of 84/65 mm Hg; his pulse was 121 bpm and pulse oximetry 93% saturation on room air. Physical examination was otherwise unremarkable. CT of the chest revealed a massive saddle pulmonary embolus and bilateral subsegmental pulmonary emboli (figure 1). The patient was started on a heparin infusion and airlifted to the University Hospital. Echocardiogram revealed right ventricular strain and an ultrasound of his left leg demonstrated an occlusive deep venous thrombosis. Therapeutic-dose enoxaparin was initiated and an inferior vena cava filter placed; the patient recovered fully within 10 days. He later resumed his radiation treatment but the remaining two doses of cisplatin were discontinued due to the risks of future thromboembolic events. Subsequent positron emission tomography imaging demonstrated a complete radiographic response of the tongue cancer.

Learning points

- ▶ Patients receiving cisplatin have an ~2% risk of developing venous thromboembolism (VTE) after weekly doses of 30 mg/m².¹ Malignancy is an independent risk factor for development of VTE.
- ▶ Routine VTE prophylaxis is not recommended for patients receiving chemotherapy.²
- ▶ In the setting of malignancy, long-term anticoagulation should be with low molecular weight heparins rather than using vitamin K antagonists or novel oral anticoagulants that have not yet been studied in cancer-specific populations.^{2 3}

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Contributors TJB and SAK contributed equally to this manuscript. Both authors approve of this submission.

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Figure 1 CT of the chest reveals a saddle pulmonary embolus, measuring 107 mm.

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