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Clinical Image

Pulmonary thromboembolism in an anticoagulated oncological patient

Diana Alegre-González [a,*], *Ramón Baeza-Trinidad* [a], *Leticia de Ávila-Lizarraga* [b], *Laura Fernández-Prado* [b]

[a] *Internal Medicine Department, Hospital San Pedro, Logroño, Spain*
[b] *Medical Oncology Department, Hospital San Pedro, Logroño, Spain*

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A 59 year-old woman recently diagnosed of lung adenocarcinoma and treated with Cisplatin-Pemetrexed was admitted to our hospital for one-week dyspnea. She was treated with Enoxaparine (60mg/kg/12 hours) due to ischemic stroke secondary to marantic endocarditis of the aortic valve 3 months ago. On physical examination, she presented oxygen saturation less than 90%, tachypnea, left lung crackles and increased right lower extremity diameter. Laboratory data revealed D-Dimer elevation [952 ug/L (normal range less than 250 ug/L)] with pO2 69 mmHg

* *Corresponding author.*
E-mail address: dalegre@riojasalud.es
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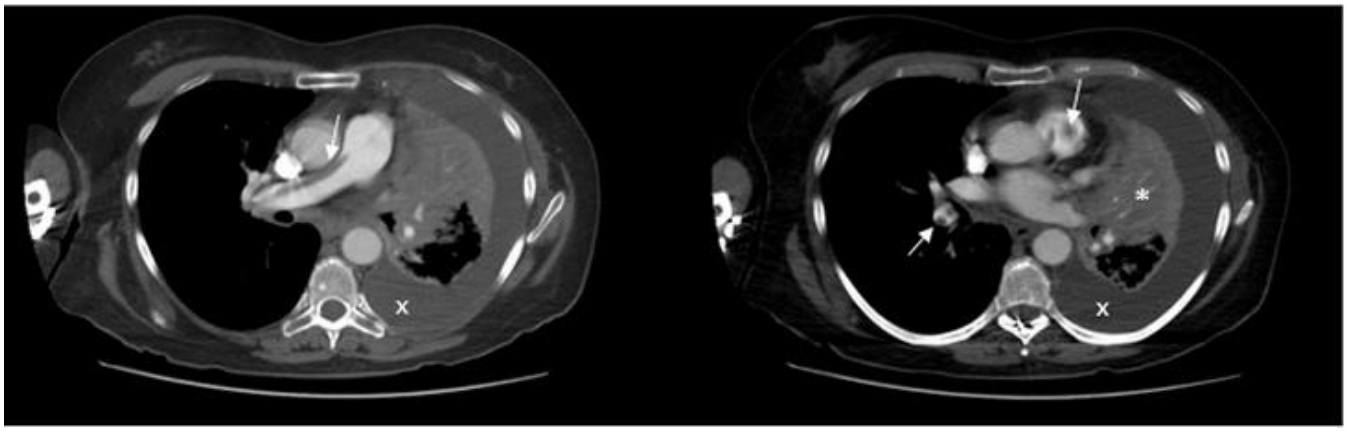

***Figure 1**: Chest computed axial tomography showing mediastinal- hiliar mass (*), a moderate pleural effusion (x) and an embolism in the pulmonary artery (arrow).*

(normal range between 80-100 mmHg) and normal pCO2. A moderate pleural effusion with a mediastinal-hilar mass and an extensive pulmonary embolism from lower right lobe segmental branches to right ventricle was observed on pulmonary computed tomography (Figure 1). Moreover, a right deep venous thrombosis in popliteal vein extending to saphenous vein was showed at Doppler ultrasound.

Oncological patients have a higher risk of venous thromboembolism (VTE) due to a pro-inflammatory condition (activated tissue factor, inflammatory cytokines…), tumour type and treatment. Patients with advanced cancer have a higher risk of VTE during the first year of starting chemotherapy, being higher during the first month of starting chemotherapy [1, 2]. Certain chemotherapy treatment regimens (such as those based on Cisplatin and antiangiogenic drugs) [1, 3, 4] are associated with an increased risk of thromboembolic disease. Seng S et al showed VTE rate of 1.92% in patients treated with cisplatin-based and 0.79% for non-cisplatin-based chemotherapy regimens [3]. Some authors think about endothelial damage, elevation of Von Willebrand factor levels and drug-induced reduction of left ventricular function as the cause of increased risk of thrombosis related to cisplatin regimens [5]. In patients with lung adenocarcinoma and high thrombotic risk, we should exclude therapies with antiangiogenic agents and assess the use of Carboplatin treatment [3, 4]. If these alternatives were not possible, thromboprophylaxis could be considered in those patients without bleeding risk [1, 3].

1. CONFLICT OF INTERESTS

The authors have no conflict of interest to declare. The authors declared that this study has received no financial support.

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