Clinical picture

Saddle pulmonary thromboembolism

A 27-year-old previously healthy man was presented to the emergency department with acute onset breathlessness since 9 h. He denied a history of fever, cough, chest pain and haemoptysis. There was no history of chest trauma. On examination, he was in respiratory distress with a respiratory rate of 40/min. His oxygen saturation was 85% by pulse oximetry while breathing ambient air. His pulse was regular at a rate of 150/min and the blood pressure was 90/60 mm Hg. An electrocardiogram revealed sinus tachycardia with S1Q3T3 pattern. A chest radiograph was obtained and it was unremarkable. A troponin I test was negative. Echocardiogram showed dilated right atrium and ventricle with right ventricular dysfunction. A moderate grade tricuspid regurgitation was present with right ventricular systolic pressure 36 mm Hg. A computed tomography pulmonary angiogram (CTPA; Figure 1) revealed a large thrombus straddling both branches of the main pulmonary artery.

Considering the right ventricular dysfunction and the low blood pressure, the patient was treated with intravenous streptokinase 1.5 million U given over 2 h, followed by anticoagulation with low molecular weight heparin. Simultaneously, he was started on warfarin 5 mg/day and the dose was titrated to achieve an international normalized ratio of 2 to 3. Over the next 36 h, his respiratory rate and pulse rate improved significantly and he was able to maintain good oxygen saturation without supplemental oxygen. Two weeks later, a repeat CTPA study showed near complete resolution of the thrombus. It is often feared that a saddle pulmonary embolus portends poor prognosis and has a high risk of mortality. A large clot load has been found to be associated with lower blood pressure and higher heart rates.1 However, several studies have reported that treatment outcome in patients with a saddle embolus does not differ substantially from the rest.2–5 The present case too illustrates this fact that despite the high thrombus burden and risk of haemodynamic compromise, patients with a saddle pulmonary thrombus can show good response to standard treatment.

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Conflict of interest: None declared.

References


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