Subacute Pulmonary Embolism Presenting with Multiple Aseptic Lung Cavities

A 56 years previously healthy lady was admitted with complaints of breathlessness and cough with scanty mucoid sputum for 15 days. There was no history of fever, haemoptysis or weight loss and she was not a diabetic or hypertensive. There was no history of pedal oedema, seizures, loss of consciousness or choking episodes. She was conscious, oriented, afebrile and tachypnoeic at rest with respiratory rate 34/min, pulse rate 110/min, blood pressure 110/70 mmHg and SpO₂ 94% breathing room air. There was no clubbing. She had distended neck veins, medially shifted apical impulse, loud P₂, decreased air entry over the right lung field and left mammary areas and soft tender hepatomegaly. Haemogram was normal. SGOT 126 U/L, SGPT 80 U/L. Routine bacterial culture of the sputum did not grow any organism and 3 samples were negative for acid fast bacillus. Sputum and BAL culture for M. tuberculosis and fungal culture were negative. Sputum cytology and BAL did not show any evidence of malignancy. ELISA for HIV and cANCA were negative. Blood culture did not grow any organism. ECG showed ‘p pulmonale’.

Chest X-ray showed multiple cavities and opacities in the right lung and opacity in the left mid zone. The right hemidiaphragm was elevated and trachea and mediastinum were grossly shifted to the right (Fig. 1).

Contrast enhanced 6-slice CT of the chest (Figs. 2a-c) showed a large hypodense embolus in the right main pulmonary artery (black line arrow) with multiple cavitating opacities in the right upper, middle and lower lobes (cavities indicated by white block arrows). There were multiple opacities with a broad pleural base in the left upper lobe. There was no fibrosis or calcification in the lungs or mediastinum. Opacities with volume reduction were consistent with collapse. Echocardiogram showed dilated right ventricle and normal left ventricle. Ultrasoundogram of the abdomen and both lower limbs did not show any evidence of deep vein thrombosis.

She was treated with enoxaparin 60 mg sc bd for 1 week and acenocoumarol 2 mg once daily. She was discharged with some residual dyspnoea on the seventh day of hospitalisation with advice to continue oral anticoagulants for 1 year and to periodically monitor aPTT and chest X-ray.

In subacute pulmonary embolism, collapse of the unperfused lung develops due to impaired production of surfactant in the infarcted lungs and the release of bronchoconstrictors from the infarcted lungs. These may reexpand with resolution of the embolus. Though cavities have been reported in pulmonary infarction they were usually solitary or few and multiple aseptic cavities are exceptional.

We highlight the fact that CT pulmonary angiogram could bring to light a broader spectrum of the clinical manifestations of pulmonary embolism.

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REFERENCES


Fig. 1
Fig. 2a
Fig. 2b
Fig. 2c