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IMAGES IN CARDIOLOGY

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The changing faces of aortic dissection: an unusual presentation mimicking pulmonary embolism

A 71-year-old man was admitted owing to an episode of retrosternal chest pain. Based on ECG findings and minimal troponin elevation, the patient was initially treated as having an acute coronary syndrome, with subsequent clinical improvement. On the second day of hospitalisation, he complained of progressively worsening dyspnoea, and pulmonary embolism was clinically suspected.

Pulmonary perfusion scintigraphy showed the total absence of perfusion in the right lung, consistent with massive pulmonary embolism in the right pulmonary artery (panels A and B). To obtain a definite diagnosis, chest computed tomography was carried out, which, unexpectedly, disclosed a type II dissecting aneurysm of the ascending aorta. Around the proximal segment of the ascending aorta a haematoma had accumulated (panels C–F), compressing the right pulmonary artery, almost occluding its patency and limiting the perfusion of the reciprocal lung.

An emergency operation was carried out, with repair of the ascending aorta and recanalisation of the right pulmonary artery. However, the patient died on the seventh postoperative day owing to post-operative acute renal failure and sepsis.

Clinical symptoms of aortic dissection vary widely from symptoms resulting from its rupture to those due to compression of surrounding organs. A clinical presentation mimicking pulmonary embolism is extremely rare. Moreover, the finding of a large unilateral segmental perfusion defect upon lung scanning does not always secure the diagnosis of pulmonary embolism. Instead, other causes of pulmonary artery obstruction should be excluded. In such cases, CT scanning may be extremely valuable in establishing the correct diagnosis and suggesting further treatment.

P N Stogiannos
D Z Mytas
V N Pyrgakis
drpavlos1968@yahoo.gr