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Clinical vignette

doi:10.1093/eurheartj/ehl253

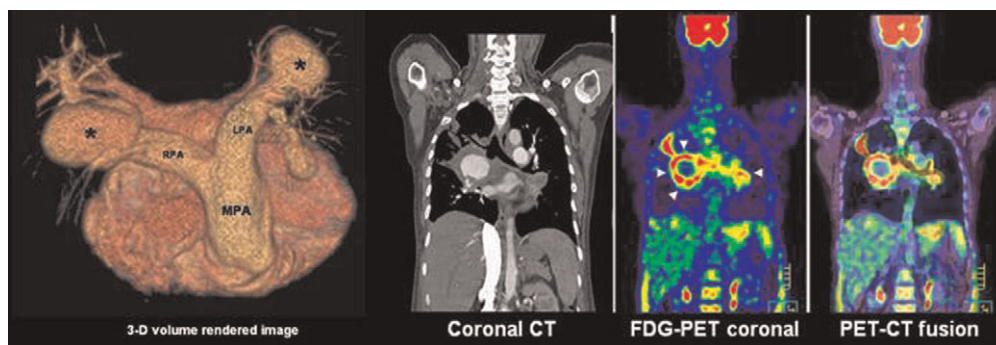
Pulmonary artery aneurysm due to systemic vasculitis: assessment of vascular inflammation using F-18 FDG positron emission tomography

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A 48-year-old woman was presented with haemoptysis. Several months ago, at another hospital, she was treated under the impression of pneumonia due to mild fever and cough. Despite medical therapy, her symptoms were not improved. Three weeks before admission to our hospital, she had a large amount of haemoptysis and began to have a shortness of breath. She was referred to our hospital for further evaluation. Transthoracic echocardiography revealed D-shaped left ventricle with severe pulmonary hypertension (estimated right ventricular systolic pressure 77 mmHg) and severe tricuspid regurgitation. There was an echogenic mass in the right ventricular cavity suggestive of thrombus. On CT scan, saccular aneurysms were noted at both pulmonary arteries with mural thrombus at the left lower pulmonary artery (left panel). Pulmonary infarction was suspected at the right lung field. F-18 FDG positron emission tomography was performed to assess vascular inflammation and revealed increased uptake along the walls of both pulmonary artery aneurysms, suggesting active inflammation (right panel). Patient was treated medically and followed-up on outpatient basis. This case illustrates that the F-18 FDG positron emission tomography may be useful for the assessment of vascular inflammation non-invasively.



Right panel. Three-dimensional volume rendered CT image showed huge aneurysms at both pulmonary arteries (asterisk).

Left panel. PET scan showed increased uptake along the walls of both pulmonary artery aneurysms, suggestive of active inflammation.