

A patient with fever, chest pain and a rapidly changing chest X-ray

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A 58-year-old male presented to the emergency department with fever, malaise and right-sided chest pain, aggravating during inspiration. Two days prior to presentation, he had been discharged home from another hospital with antibiotics for a suspected urinary tract infection. Chest X-ray and CT scan, trans-thoracic echocardiography and blood cultures had not revealed any abnormalities during that hospital admission. The patient had a Bentall procedure with aortic valve replacement, complicated by cardiac tamponade 2 years earlier. Since then his body weight had gradually decreased by 20 kg, and there had been intermittent low-grade fever.

The diagnosis was prosthetic valve endocarditis (PVE) with partial dehiscence of the prosthesis resulting in a contained mediastinal hematoma. The chest radiograph showed a circular paracardial structure (Fig. 1) that was not present on the chest X-ray 2 days prior to presentation. The dramatic change in the plain chest film over 2 days is suggestive of a rapidly developing false aneurysm or haemorrhage. CT scan of the chest revealed extravasation of contrast cranial to the aortic valve (Fig. 2: white arrow) with a contained hematoma in the anterior and middle mediastinum. PVE occurs with a 3–6% accumulative

frequency 5 years after surgery, with the highest incidence in the first year [1]. The ~11 year probability of bleeding is 19 to 42%, occurring more frequently in mechanical valves because of the lifelong anti-coagulation [2, 3]. PVE can be treated with antibiotics alone unless there is evidence of bleeding [4], as was the case for our patient, who was admitted to the intensive care unit after replacement of the prosthesis, where he gradually recovered.



Fig. 1 Chest X-ray made during current presentation

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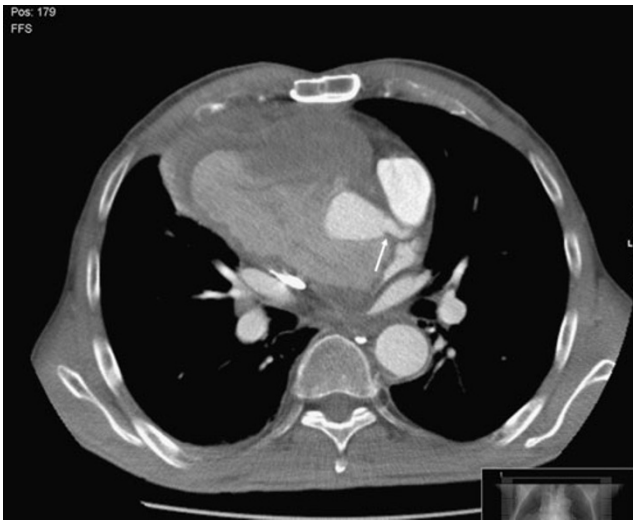


Fig. 2 Contrast-enhanced CT scan of the chest

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