Images in cardiology

Ruptured type B aortic dissection masquerading as massive left pleural effusion

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A 72-year-old gentleman, diabetic and hypertensive, presented to the emergency room with a history of sudden onset chest discomfort and breathlessness of 2 days duration. His chest radiograph showed massive left pleural effusion and mediastinal shift to the right and trans-thoracic echocardiography revealed normal left ventricular function (LVF) and no evidence of dissection in the ascending and arch of aorta or pericardial effusion. An urgent computed tomography (CT)-aortogram was ordered to rule out ruptured aortic

dissection/aneurysm. The CT-aortogram showed a dissecting aneurysm in the proximal descending thoracic aorta starting immediately after the origin of the left subclavian artery and extending distally below the renal arteries with evidence of rupture into the left pleural cavity (Figure 1). Patient was taken up for emergency surgery. The thoracic aorta was repaired with interposition graft after evacuation of the clots from the left pleural cavity. Post surgery patient had multi-organ dysfunction and expired.

Figure 1 Computed tomography-aortogram (A) in coronal section showing dilated ascending and arch of aorta, major supra-aortic branches and the dissection starting immediately after the left subclavian artery, (B) in oblique section showing the dissection extending beyond the renal arteries, massive left PE and the site of rupture, (C) in axial section showing descending aortic dissection and left PE, (D) three-dimensional-volume rendered technique image showing the dissection and the site of rupture. AO: aorta, TL: true lumen, FL: false lumen, PE: pleural effusion. *dilated aortic root, → site of rupture.

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