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Huge aortic aneurysm and dissection detected by the right parasternal echocardiographic window

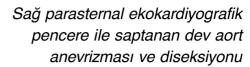
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An 85-year-old male patient having hypertension for 20 years was admitted with intermittent chest and back pain lasting for 24 hours. He

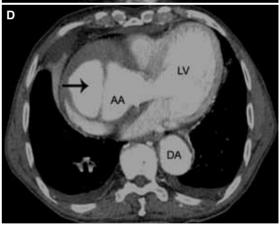


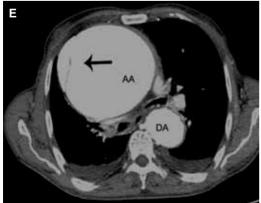
had a five-year history of an ascending aortic aneurysm measured 7.5 cm by computed tomography, for which he refused surgical treatment. He was on metoprolol, ramipril, and aspirin treatment. His blood pressure was 120/80 mmHg (equal in both arms) and heart rate was 75w beats/min. Cardiac auscultation showed a midsystolic murmur radiating to the neck and an early diastolic murmur at the right sternal border. Examination of the other systems was normal. The surface electrocardiogram was normal. The chest radiograph revealed a prominent ascending aorta on the right side of the middle mediastinum (Fig. A). Emergent transthoracic echocardiography was performed. There was dilatation of the ascending aorta beginning over the level of the sinuses. Multiple images of the ascending aorta were taken from multiple echocardiographic windows and the right parasternal view gave the best visualization of the ascending aortic dilatation and dissection line (Fig. B, C). The diagnosis was made as aortic aneurysm and dissection (DeBakey type II). Computed tomography of the chest supported the diagnosis (Fig. D, E). The patient was submitted to emergency surgery.











Figures. (A) The chest radiogram shows enlargement of the ascending aorta on the right side of the middle mediastinum. The aortic arch seems to be nearly normal in diameter. *Transthoracic echocardiographic views:* (B) Apical four-chamber view showing the intimal flap over the level of the sinotubular junction (arrow). The left atrium and left ventricle are compressed. (C) The intimal flap is clearly seen from the right parasternal window (arrow) with the patient in the right lateral decubitus position. The transducer is located in the third right parasternal intercostal space. Probe marker is pointing to the patient's left and has an angle approximately 60 to 90 degrees to the craniocaudal plane. The transverse diameter of the ascending aorta is 9.65 cm in this view. *Thoracic computed tomography images:* (D) The dilated ascending aorta and the intimal flap is seen over the level of the sinotubular junction (arrow). (E) The ascending aorta is enlarged and nearly fills the right middle mediastinum. The intimal flap is seen (arrow). The transverse diameter of the ascending aorta is 10 cm in this view. AA: Ascending aorta; LV: Left ventricle; DA: Descending aorta; LA: Left atrium.