Acute contained rupture of DeBakey type II aortic dissection

Steven Laga, Dina De Bock, Inez E. Rodrigus, Bernard P. Paelinck

Department of Cardiac Surgery, University Hospital Antwerp, Edegem, Belgium

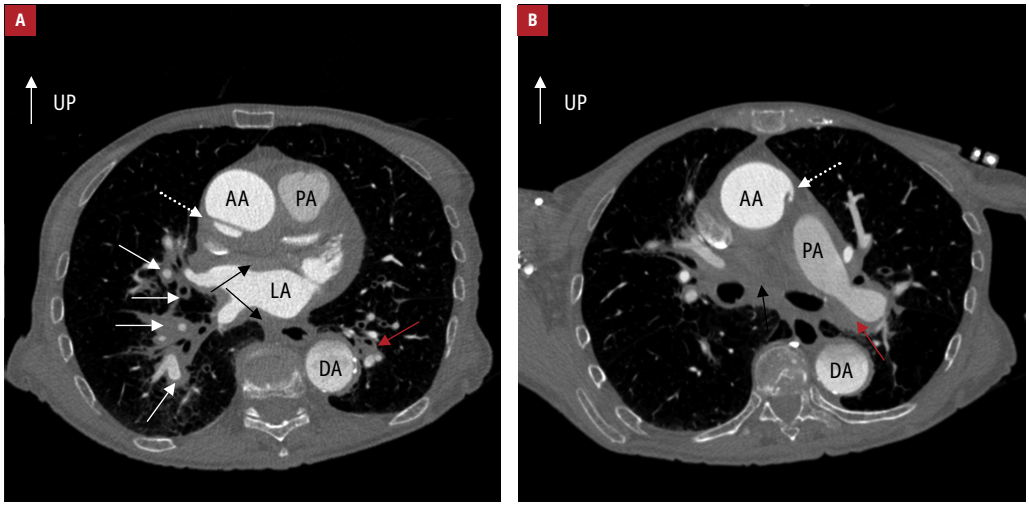

FIGURE 1 Axial computed tomography angiography of aortic dissection (**A**, **B**; dotted white arrows) and contained rupture causing mediastinal hematoma (**A**, black arrows) extending around bronchovascular pulmonary hila (**A**, black and white arrows) and intrapulmonary vascular and airway structures (**A**, white arrows)
Abbreviations: AA, ascending aorta; DA, descending aorta; LA, left atrium, PA, pulmonary artery

A 76-year-old woman with no history of cardiovascular disease presented to the emergency department after syncope. She had intense epigastric pain, dyspnea at rest, and signs of cardiogenic shock. Left ventricular hypertrophy and inverted T waves in leads V_5 and V_6 were seen on electrocardiography. Chest radiography showed widening of the mediastinum. Transthoracic echocardiography in the emergency department demonstrated pericardial effusion with signs of pretamponade. Urgent computed tomography angiography revealed DeBakey type II aortic dissection (FIGURE 1A and 1B). A large mediastinal hematoma infiltrated the posterior mediastinum and circumscribed all its structures (FIGURE 1A), both lung hila (FIGURE 1B), and intrapulmonary vascular and airway structures (FIGURE 1A).

During surgery, rupture of the adventitial layer of the dissected ascending aorta at its dorsal side and above the arterial mesocardium was identified. Supracoronary ascending aortic and proximal arch replacement was performed. After that, the patient recovered.

Computed tomography is an easy, available, noninvasive, fast, and high-quality imaging technique, which helps to establish differential diagnosis[1] between life-threatening conditions including pulmonary embolism and aortic syndrome. In aortic syndrome, mediastinal hematoma and pericardial tamponade predict imminent progression to free aortic rupture.

Correspondence to:
Bernard Paelinck, MD, PhD, Department of Cardiac Surgery, University Hospital Antwerp, Wilrijkstraat 10, 2650 Edegem, Belgium, phone: +32 3 8213129, email: bernard.paelinck@uza.be
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This clinical vignette illustrates the diagnostic performance of urgent computed tomography[1,2] in a patient presenting with incoming shock: contained rupture in aortic dissection and its complications including pericardial pretamponade and mediastinal hematoma extending around both bronchovascular pulmonary hila. Acute aortic dissection with contained rupture is a life-threatening emergency necessitating immediate surgical repair.

ARTICLE INFORMATION

CONFLICT OF INTEREST None declared.

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