A 46-year–old man was admitted for severe back pain over the interscapular area radiating anteriorly along the ribs. Symptoms started intermittently 2 months previously, but became severe and persistent over the past 3 days. The patient was a former sailor and a heavy smoker, with no relevant personal or family history of cardiovascular disease. At physical examination, a pulsatile left paravertebral mass could be seen and palpated close to the spine (online-only Data Supplement Movie I). A high-pitched descrescendo diastolic murmur could be heard along the left sternal border. He was normotensive and tachycardic, with no signs of pulmonary or systemic congestion. The ECG showed sinus tachycardia (115 beats per minute) and complete right bundle-branch block with secondary ST-T changes (Figure 1). Chest x-ray film showed a slightly increased cardiothoracic index, with a significant bulge at the upper half of the left cardiac border (Figure 2). Transthoracic echocardiography revealed moderate-severe aortic regurgitation (online-only Data Supplement Movie II) through a thickened tricuspid aortic valve. The aortic root was not significantly enlarged. Transesophageal echocardiography confirmed the severity of aortic regurgitation (online-only Data Supplement Movie III) and showed a giant descending thoracic aortic aneurysm (diameter of 8.7 cm), partly thrombosed (Figure 3 and online-only Data Supplement Movie IV). Thoracic computed tomography revealed a
small aneurysm at the distal part of the ascending aorta and confirmed the large descending aortic aneurysm (Figure 4), which was eroding the spine and adjacent ribs protruding toward the skin (Figures 5 and 6). Magnetic resonance imaging allowed better delineation of the local aneurysm extension (Figure 7). Treponema pallidum hemagglutination assay was positive, suggesting a syphilitic nature of aortic involvement. The patient refused any invasive treatment and died shortly after discharge.

This report describes the rare case of a double aortic aneurysm of luetic etiology and the complementary role of several imaging techniques for the detailed description of disease extension. The descending aorta aneurysm was large enough to cause spine and ribs erosion and to become visible at the physical examination as a paravertebral pulsatile mass, suggesting the diagnosis of a large aortic aneurysm already at the clinical examination.

Disclosures

None.

Reference


Key Words: aneurysm aorta echocardiography thoracic aortic aneurysm

Figure 2. Postero-anterior chest x-ray film depicts a slightly increased cardiothoracic index and mediastinal superior right, superior, and middle left arch enlargement (arrows) with a biconvex bulging left-side border.

Figure 3. Transesophageal echocardiography shows a large descending thoracic aortic aneurysm with a diameter of ~8.7 cm. The aneurysm is partially thrombosed (arrows).
Figure 4. Computed tomography angiography with sagittal-oblique view reformatation at the aortic thoracic level reveals double saccular aortic aneurysms, one located at the anterosuperior portion of the ascending aorta and the second with a posterior topography at the descending thoracic aorta, both partially thrombosed (arrows).

Figure 5. Computed tomography angiography, axial view at the level of the pulmonary trunk depicting large partially thrombosed descending aortic aneurysm, extending to the left costovertebral space, and involving the left epidural space (arrow) and the paraspinous muscles.
Figure 6. Computed tomography angiography with sagittal-oblique 3D view reformatation at the aortic thoracic level revealing double saccular aortic aneurysms (arrows). In this type of reconstruction only the circulated portion of the aneurysms is seen.

Figure 7. Magnetic resonance imaging T1-weighted after gadopentetic acid intravenous injection, axial view at the level of the pulmonary trunk showing large descending aortic aneurysm (arrow), partially thrombosed, extending at the left costo-vertebral space and involving the left epidural space and the paraspinal muscles (arrowheads). Magnetic resonance imaging shows a better delineation of the extensions vs the computed tomography angiography.
A Paravertebral Pulsatile Mass
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