

Cardiac Imaging

Pericardial Cyst in an Unusual Location

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A 47-year-old woman was evaluated at our hospital for abnormal findings on chest radiography, showing an enlarged contour of the right heart border (Figure 1). Her past medical history was positive for tobacco abuse. She denied dyspnea, chest pain, exercise intolerance or fatigue. Physical examination was unremarkable; results of chest and cardiac examinations were normal and without evidence of elevated right-sided venous pressures. Laboratory examinations, including blood tests, electrocardiogram and respirometry, were normal. The right parasternal view of the transthoracic echocardiogram showed an oval, fluid-filled, echolucent structure with a thin and smooth wall, adjacent to the right atrium, a finding suggestive of a pericardial cyst (Figure 2). No pericardial effusion and no evidence of compromise of adjacent structures were found. The right and left ventricular sizes and functions were normal, and there was no valvular heart disease. The transesophageal echocardiogram failed to confirm the presence of the pericardial cyst but demonstrated no signs of compression of the superior *vena cava*. A cardiac magnetic resonance imaging examination was then carried out, which showed a 3 × 6 cm, well-defined, lobulated mass in the right anterior mediastinum, lateral to the right atrium and superior *vena cava*, a finding also suggestive of a pericardial cyst (Figure 3). Since the patient was as-

ymptomatic the decision was to manage her conservatively.

Pericardial cysts are rare mediastinal abnormalities, with an estimated prevalence of 1:100,000 persons, and constitute 7% of all mediastinal tumors.¹ They are usually found in the right or left cardiophrenic angle and are rarely located in the posterior or anterior superior mediastinum.² Most commonly, pericardial cysts are discovered incidentally on chest radiography, appearing as an enlarged contour of the right heart border.³ Diagnosis can be confirmed with the use of transthoracic and transesophageal echocardiography, computed tomography, and magnetic resonance imaging of the chest.

Pericardial cysts rarely cause symptoms, but they have been associated with multiple complications, including right ventricular outflow obstruction, pulmonary stenosis related to extrinsic compression, pericarditis, cyst rupture, cardiac tamponade, erosion into the superior *vena cava*, congestive heart failure and even sudden death.³⁻⁵

Management of a pericardial cyst depends on the distinctiveness of the cyst and the occurrence of symptoms.³ Asymptomatic cases are managed conservatively, with a close follow up, to ensure a benign course in which the pericardial cyst may resolve spontaneously. Among patients who have a symptomatic pericardial cyst, surgical excision or percutaneous aspiration of the pericardial cyst should be considered.

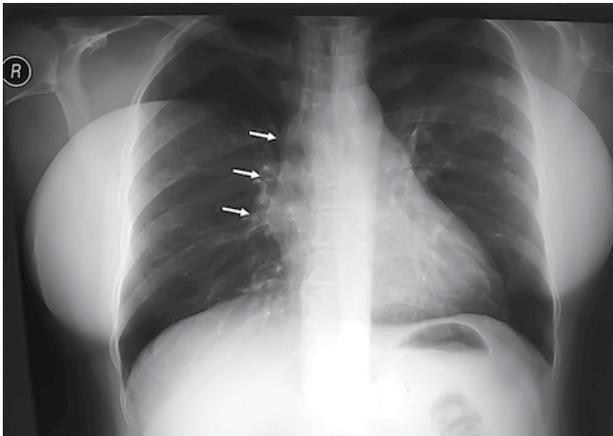


Figure 1. Chest radiograph showing a well-defined shadow (arrows) in the right heart border.

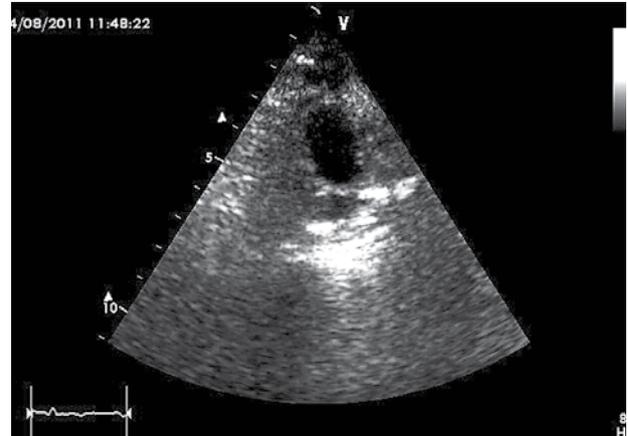


Figure 2. Right parasternal echocardiographic view showing an echolucent structure next to the right atrium.

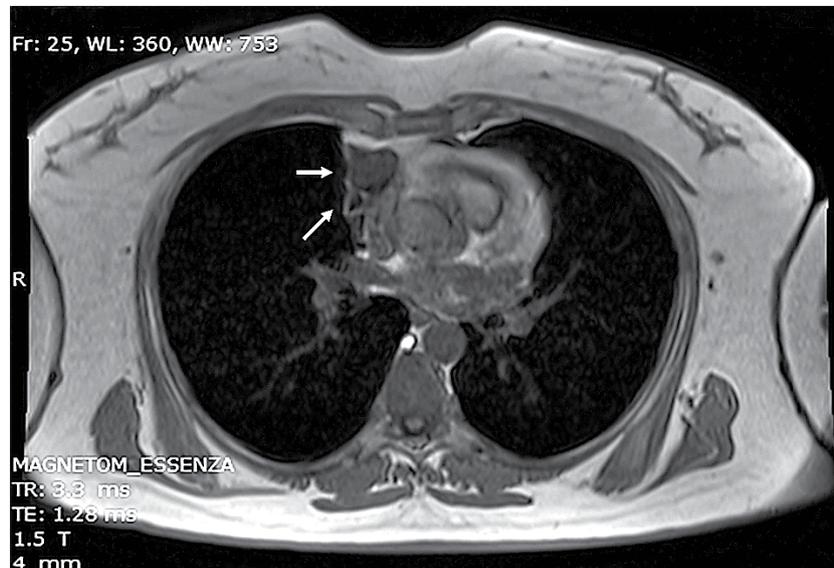


Figure 3. Magnetic resonance imaging demonstrating a pericardial cyst (arrows) at the superior anterior mediastinum.

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