

Images in Cardiovascular Disease



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Conflict of Interest

The authors have no financial conflicts of interest to report.

Author Contributions

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Pericardial Tuberculoma: Transition from Asymptomatic Pericardial Effusion to Pericardial Mass

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A 64-year-old female was referred to our clinic for a small pericardial effusion that was incidentally found on computed tomography (CT) performed for acute hepatitis A. The patient was asymptomatic, and the pericardial effusion spontaneously decreased on follow-up CT 2 weeks later. Observation was recommended.

Seven months later, she returned to our clinic with a pericardial mass that was also incidentally found. She had no other symptoms or signs on physical examination. Her body temperature was normal, heart rate was 75 beats/minute, and blood pressure was 118/74 mmHg. Pericardial friction rub was not heard.

Echocardiography revealed an anechoic pericardial mass with ovoid and smooth characteristics on the anterior side of the pulmonary artery and left ventricle (**Figure 1, Movie 1**). Chest CT revealed a pericardial abscess in the left anterior pericardial space (**Figure 2**). Cardiac magnetic resonance imaging confirmed a hyper-enhanced rim with central lower signal intensity on the delayed enhancement image (**Figure 3**). ¹⁸F-fluoro-deoxyglucose positron emission tomography/CT suggested active pericardial tuberculoma with benign reactive lymphadenopathy. Surgical resection revealed a 5-cm × 5-cm solid round mass with caseous pus and adhesions. On pathology, there was chronic granulomatous inflammation with caseation

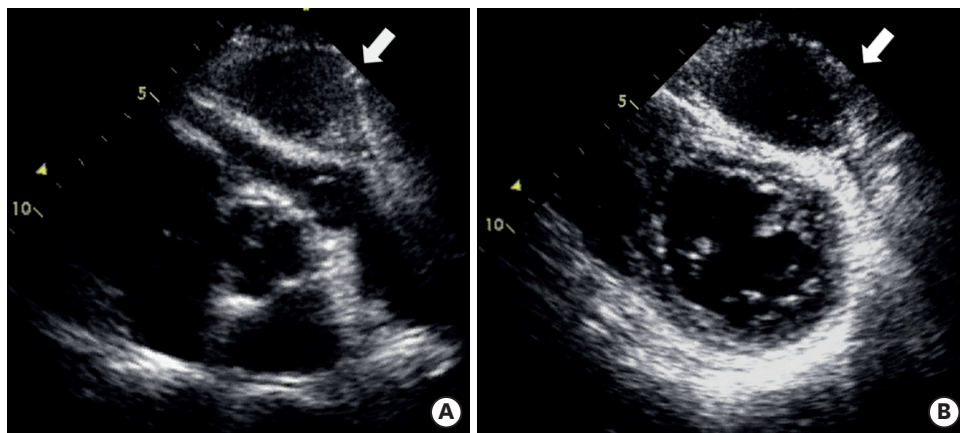


Figure 1. Parasternal short-axis view showed a large, smooth, anechoic mass on the anterior side of the pulmonary artery and left ventricle (arrows). (A) Aortic valve level; (B) mitral valve level.

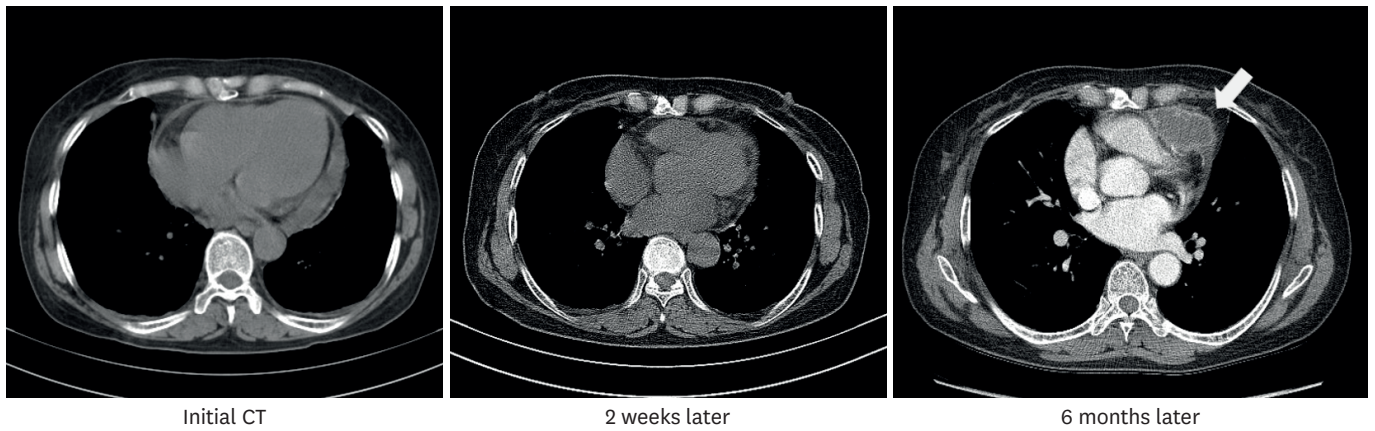


Figure 2. Serial changes on computed tomography. Pericardial effusion decreased without producing symptoms and slowly progressed to pericardial abscess (arrow).

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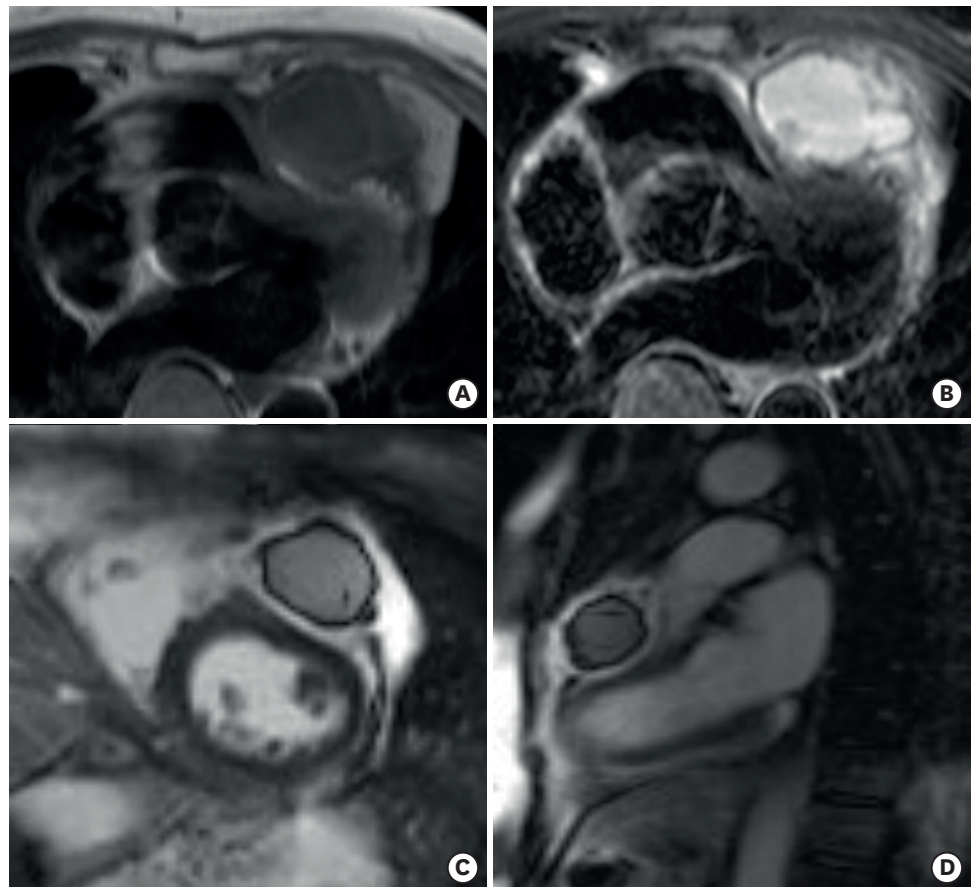


Figure 3. Cardiac magnetic resonance imaging. (A) The inside of the mass demonstrated low signal intensity on the T1 sequence. (B) The inside of the mass demonstrated high signal intensity on the T2 sequence. A pericardial mass with a hyper-enhanced rim and central lower signal intensity was observed on the delayed enhancement image on the (C) two-chamber short axis and (D) parasagittal axis.

necrosis and positive nested polymerase chain reaction results consistent with tuberculous pericarditis. The patient was administered an anti-tuberculous regimen with steroids for 9 months, and there were no complications.¹⁾

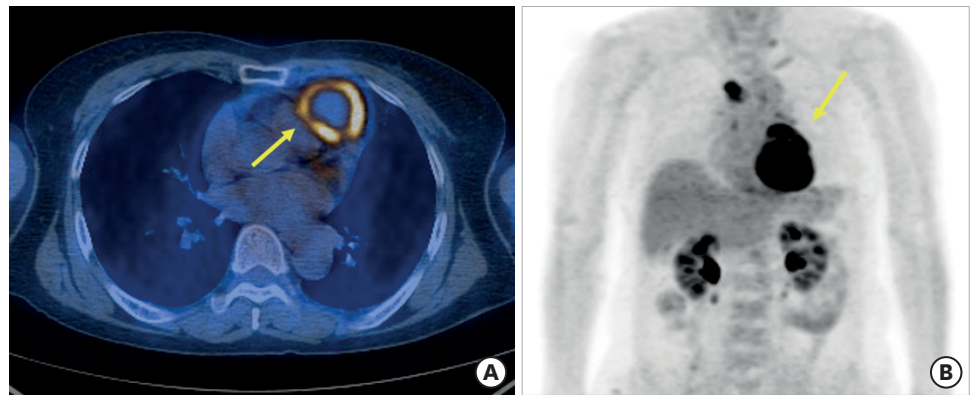


Figure 4. ^{18}F -fluoro-deoxyglucose positron emission tomography with chest computed tomography showed a hypermetabolic mass (SUVmax = 10.4) with a central metabolic defect in the left anterior mediastinum (yellow arrow). Multiple hypermetabolic lymph nodes were detected in the paratracheal, subcarinal, hilar, and supraclavicular areas.

We describe a rare case of transition from asymptomatic pericardial effusion to pericardial tuberculoma.^{2,3)} Multimodal imaging techniques facilitated appropriate decision-making, resulting in surgical treatment.

SUPPLEMENTARY MATERIAL

Movie 1

Transthoracic echocardiography

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