Rare form of large pericardial cyst in 73 years old with atypical chest pain

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Abstract

We are reporting a case of 73 year-old gentleman with atypical chest pain and history of hypertension who underwent clinical evaluation at our center. He was ultimately diagnosed with rare presentation of pericardial cyst. His echocardiographic data and Chest CT scan data were unique because most pericardial cysts are seen in right side of the heart unlike our patient who had suffered from large left sided form of the disease which is very rare [Iranian Heart Journal 2011; 12 (3):64-66].

Key words: Pericardial cyst, atypical chest pain

Case report

A 73-year-old gentleman with history of hypertensive heart disease and multiple episodes of atypical chest pain was referred to our clinic for further evaluation. His past medical history was unremarkable except for hypertension since 4 years ago. He was never admitted to the hospital before. On physical examination he showed BP=145/85, PR=88/min, RR=12/min. Cardiac examination showed slight muffling of heart sounds but was otherwise unremarkable. His ECG showed normal sinus rhythm with left axis deviation and left ventricular hypertrophy voltage criteria but no specific ST-T wave changes. His lab tests’ results showed no abnormalities.

He underwent cardiac thallium scan which showed stress induced reversible ischemia at anterior wall.

His echocardiography showed Normal LV size and function with LV ejection fraction 50-55% and normal RV size and mild RV dysfunction. Also, there was a large size echo free space 13*5.5 cm that extended from antero-lateral side of LV up to lateral side of RV with mild compression effect on RV apex. Contrast study showed no connection between this space with any of cardiac chambers and there was no bubbles’ passage inside the echo free space.

He was candidate for cardiac catheterization for evaluation of chest pain regarding to his positive perfusion scan which showed normal Coronary arteries and normal EF.

On his chest CT scan he showed an oval well demarcated low density lesion in antero-inferior aspect of left hemi thorax measured at 127*55 mm with low CT number (5HU).
And pressure effect on the heart that attached at the exterior surface of the pericardium without pericardial thickening or calcification which was suggestive for large pericardial cyst.

His serologic markers for hydatid cyst and his PPD test were negative. He was candidate for medical follow up.

**Discussion**

Pericardial cysts are benign developmental anomalies seen in approximately 1 in 100,000 people.

These structures constitute 6.5% of all primary tumors of the heart and pericardium, and they are either congenital or acquired after an infection or injury. They generally have an unilocular cavity with trabeculated inner lining, filled with serous fluid. Histologically, a single layer of mesothelial cells covers the inner surface of these cysts, with the remainder of the wall composed of connective tissue with collagen and elastic fibers. They are usually found incidentally upon CXR and typically cause few symptoms.

Their true incidence is unknown. In one study: The mean age was 50.4±17 years with a female-to-male ratio of 2. Pericardial cyst was located in the right hemithorax in 67% pts and left hemithorax in 33% pts. The cysts were resected by thoracotomy in 33% pts and by video-assisted thoracic surgery in 67% pts.

Multi-slice CT can have a great impact on the detection of pericardium diseases such as pericardial cysts.
Contrast study should be considered in evaluation of the patient prior to making a decision to rule out any connection with cardiac chambers and also systemic venous chambers that mimic such cysts.

Surgical treatment of pericardial cysts may be reserved for patients, who have severe symptoms due to complications, or when diagnosis is uncertain and malignancy is suspected. Videothoracoscopic surgical removal of pericardial cysts is an excellent surgical intervention without serious morbidity and mortality.

References


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