Case Report

Spontaneous Resolution of a Pericardial Cyst

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Surgical resection is accepted as the standard of care for the treatment of pericardial cysts. We describe a young woman who refused surgery but was followed by serial computed tomographic scans. Over a 2-year period there was a gradual decline in the size of the lesion and eventual complete resolution. This describes the first reported case of spontaneous pericardial cyst resolution. In select cases a conservative management may be appropriate; however, larger studies are warranted to verify these findings. (Ann Thorac Cardiovasc Surg 2010; 16: 55–56)

Key words: computed tomographic scan, pericardial, mediastinum, cyst

Introduction

Pericardial cysts are benign intrathoracic lesions that occur in one out of every 100,000 people.[1)] More than 60% are discovered between the ages of 30 and 50.[2)] The majority localize at the right cardiophrenic angle (70%) or left cardiophrenic angle (10 to 40%), but lesions can also develop along the upper mediastinum, hilus, or cardiac border.[3)] Despite appearing multiloculated externally, the cystic cavity is almost always uniloculated. The cavity tends to contain a watery fluid similar to transudate, with the occasional addition of blood and necrotic cyst content. Seventy percent of patients are asymptomatic, but symptoms include chest discomfort, tightness, aching or pain caused by compression of the coronary artery or cyst rotation. Generally, diagnosis can be made only through radiography. In order to avoid cyst-associated complications, an intervention of thoracoscopic cyst removal or limited muscle sparing thoracotomy is recommended for most patients with pericardial cyst. We report the case of a patient with an asymptomatic pericardial cyst who declined recommended surgical intervention. Periodic follow-up visits demonstrated progressive reduction and eventual resolution of the cyst. To our knowledge, spontaneous resolution of a pericardial cyst without any form of invasive intervention has not previously been reported.

Clinical Summary

A 55-year-old woman with a history of Merkel cell cancer and basal cell carcinoma was diagnosed with a right renal carcinoma and underwent laparoscopic nephrectomy. Computed tomography (CT) revealed a 7 × 3 cm pericardial cyst of the posteroinferior aspect of the left cardiac border (Fig. 1). The patient had an occasional dry cough with no sputum, hemoptysis, dyspnea or change in bowel or bladder habits. She was otherwise asymptomatic. Surgery was offered but refused. CT scan at both two months and six months showed that the cyst persisted approximately at its previous size, and the patient continued to refuse surgery. The patient continued to be followed closely with periodic CT scans. Ten months later a CT scan demonstrated a significant reduction in size to 3.7 × 0.9 cm (Fig. 2). The patient returned approximately seven months later and a CT scan showed complete resolution of the pericardial cyst (Fig. 3).

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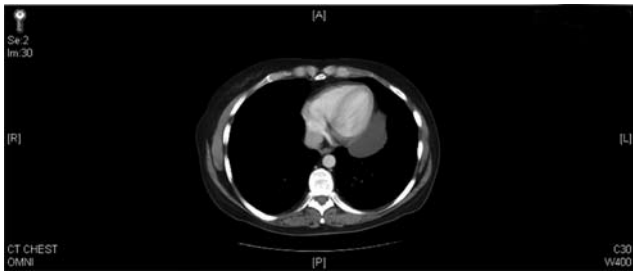

Fig. 1. Initial CT demonstrating a 7 × 3 cm pericardial cyst of the posteroinferior aspect of the left cardiac border.

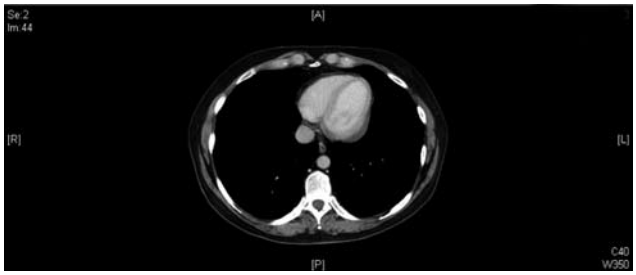

Fig. 2. CT scan 10 months later demonstrating a significant reduction in size to 3.7 × 0.9 cm.

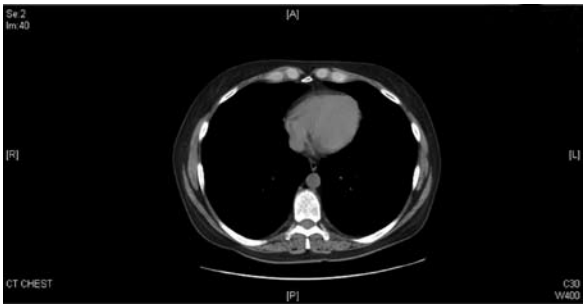

Fig. 3. CT scan 17 months after initial diagnosis demonstrating near complete resolution of the pericardial cyst with trace amounts of pericardial fluid.

Discussion

A review of the literature indicates two other cases of spontaneous resolution of a pericardial cyst. However, the resolution in both of these cases was preceded by an invasive procedure in the same area as the cyst.[4,5)]

Pericardial cysts are usually discovered as incidental findings during a chest X-ray or CT scan. It has been generally accepted that some form of surgical excision is beneficial to these patients in order to avoid infection or malignant degeneration. Our demonstration of the capability for spontaneous resolution of a pericardial cyst could lead to a more conservative approach to treatment of affected patients. Previous reports discuss the possibility of rupture of the cyst,[4)] but a more thorough scientific documentation is needed to confirm this. Our case demonstrates a gradual reduction in size without evidence of pleural effusion to suggest rupture. This case supports the possibility of non-operative management in select cases.

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