

Case Report

Dyspnea through Compression of Mediastinal Structures due to Pericardial Cyst

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A case of a 65-year-old patient, showing dyspnea to strains and right side pain as main symptoms of an approximately 8 cm cyst in the pericardium. The physical, biochemical and electrocardiographic examinations did not evince any changes. The results from the thoracic radiography, CT scan and echocardiogram suggested pericardial cyst. Based on those clinical evidences, the patient was submitted to a thoracotomy in the right side thoracic region and a complete excision of the mediastinal mass was performed, with complete remission of the symptoms.

The pericardial cysts are affections caused by a problem in the development of the coelomic cavity. In adults, the cystic lesions are responsible for 6 to 7% of mediastinal masses reported in the literature¹, the estimated incidence of pericardial cyst is 1:100.000^{2,3} and are usually asymptomatic. Not so often they can be symptomatic and need a surgical treatment. We reported the case of a patient who showed symptoms attributed to the pericardial cyst and who was submitted to surgical treatment.

Case Report

A 65-year-old woman from Soledade, RS and resident in Passo Fundo, RS, sought medical attendance in the hospital São Vicente de Paulo, with a history of dyspnea to strains. She showed a concomitant pain on the right side thoracic region and also dry cough when she walked. The patient was an ex-smoker, and had given it up many years before.

At the time of the physical exam, she was in a good general condition, rosy-cheeked, hydrated, acyanotic, anicteric, eupneic, afebrile, without jugular turgency, without peripheral edema. Blood pressure: 120 x 80 mmHg. Heart rate: 78 bpm. Palpable, symmetric and rhythmic pulses, without changes in peripheral perfusion. Ictus cordis located in the 5th left intercostals space, on the level of the left hemiclavicular line, of approximately two digital pulps. Normophonetic sounds without murmur. The vesicular murmur was bilaterally present, without accidental noises, at the pulmonary auscultation. The abdomen was flat, flaccid, with the presence of hydro-airy sounds, painless to palpation, without visceromegalies.

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The biochemical exam and the electrocardiogram did not evince any changes. A 8.0 x 7.0 cm anterior mediastinal expansive lesion, with homogenous density, without previous calcifications was observed at the thoracic radiography. Atheromatous calcifications at the crest of aorta, increase of cardiac diameters, elongation of the thoracic aorta and dorsal scoliosis (figs. 1a and b). The results from the thorax CAT scan and echocardiogram suggested pericardial cyst.

With those clinical evidences, the patient was operated. A thoracotomy in the right side was performed, with a complete excision of the mediastinal mass, measuring 8.0 x 7.0 x 0.4 cm, with further diagnostic confirmation through the anatomopathologic examination of pericardial cyst.

Successfully operated, the patient had remission of the symptoms and is active in her usual activities, 9 months after the surgery.

Discussion

Pericardial cysts are benign mediastinal tumors⁴. Their diagnosis is generally regarded when mass confined to the cardiac rim is evinced in a thoracic radiography⁵. They can be congenital or acquired⁵. Some communicate with the pericardial cavity⁶, have a clear fluid and vary, on average, from to 2 cm up to 15 cm³.

For the differential diagnosis solid tumors, including angioma, lipoma, neurogenic tumor, sarcoma, lymphoma, bronchiogenic carcinoma, metastasis, granulomatous lesion and abscess⁵ must be taken into consideration. The ideal examination for the diagnosis of pericardial cyst is the CT Scan, which frequently differentiates a mediastinal cyst from a solid mass. However, the definitive diagnosis is only consolidated through the anatomopathologic exam².

More than 50% of the cases are asymptomatic³. Usually, they occur more in adults, frequently in the 3rd and 4th decades of life, and rarely in children¹, without preference of sex. Thoracic pain, cough, dyspnea or paroxysmal tachypnea are symptoms that can be found in 25 to 30% of the patients.

Dyspnea, in this case, was particularly related to the size of pericardial cyst (measuring 8.0 x 7.0 x 0.4 cm), which compressed the mediastinum of the patient, causing hemodynamic changes.

The definitive treatment of pericardial cysts is surgical, indicated in the symptomatic patients, with hemodynamic repercussions such as arrhythmias, dyspnea, atelectases and fast radiological growth of the lesion³. In our case, the symptoms of dyspnea, right side thoracic pain and cough typically happened for the

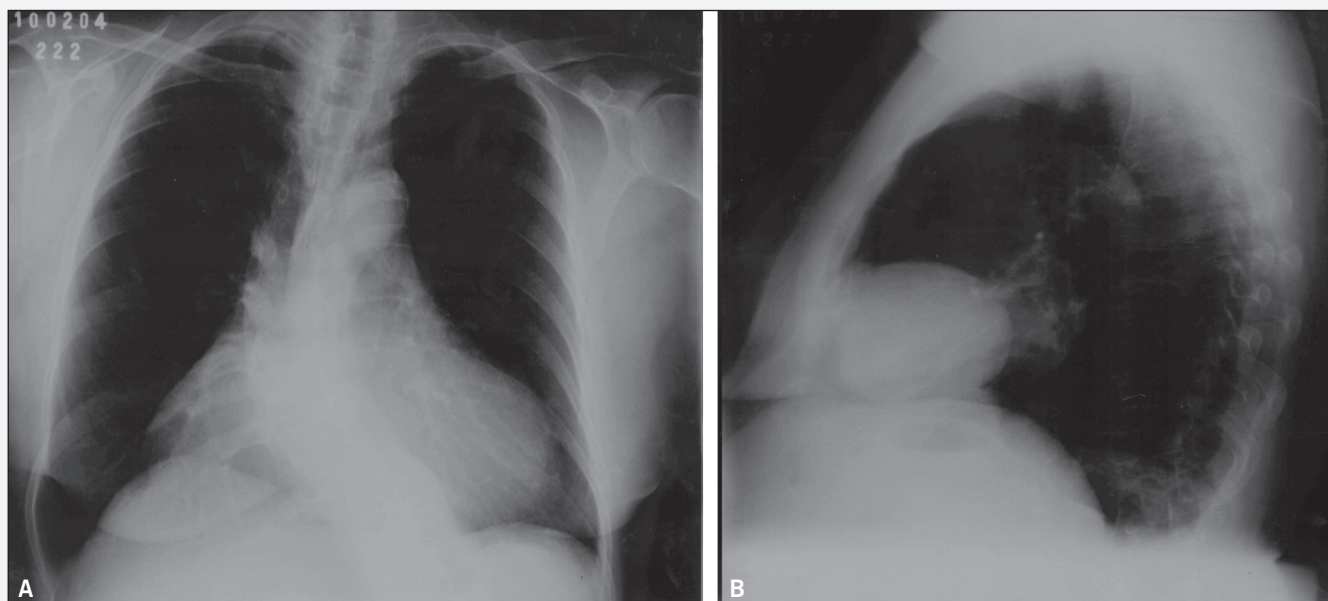


Fig. 1- Radiographies from the thorax in posteroanterior (A) and cross-section (B) showing anterior mediastinal expansive lesion, with homogenous density, mass nearby the heart that does not obstruct the cardiac outline.

compressive characteristic of the cyst, of significant volume, which caused hemodynamic changes. Those symptoms could also be aggravated for the compression level of the cyst in mediastinal structures⁵, which allowed for opting for the surgical treatment.

Therefore, once the diagnosis of pericardial cyst was established, the decision of surgically treating or adopting an expectant

conduct, must be especially based on the symptomatology of the patient. Cases with compressive characteristics or with an important hemodynamic compromising must be referred through surgery. The asymptomatic patients can be followed up periodically, as that long duration studies have shown that such patients are not used to developing symptoms^{5,2}.

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