

Letters to the Editor

Hydatid Cyst Case Imitating Thoracic Wall Malignancy



Caso de quiste hidatídico que imitaba una neoplasia de la pared torácica

Dear Editor,

Hydatid cyst disease (hydatidosis or echinococcosis) is a parasitic disease found in farming communities, notably in South America, North Africa, the Middle East, the Mediterranean and Eastern and Central Anatolia.¹ It is most frequently seen in the liver (60%–70%) and lungs (20%–30%). Intrathoracic extrapulmonary involvement is rare.² The rate of recurrence following surgical removal of lung or liver hydatid cysts has been to be between 1.4% and 11%.³ This report describes a case of a hydatid cyst imitating thoracic wall malignancy.

A 67-year-old male, non-smoker, a native of Ağrı (Eastern Anatolia), was admitted to our clinic with a 3-month history of cough and loss of appetite. Physical examination showed diminished breath sounds. Laboratory findings were within normal limits. Chest X-ray revealed a homogenous density adjacent to the right chest wall. Chest computed tomography (CT) showed a 52 × 28 mm extrapleural mass in the thoracic wall destroying the anterior right sixth rib (Fig. 1). Suspecting thoracic wall malignancy, transthoracic fine needle aspiration biopsy (TTFNAB) was performed. The cytology report indicated “homogenous eosinophilic lamellar material of a hydatid cyst closely surrounded by scolices”. The patient underwent surgery to remove the cyst. Postoperative 15–20 mg/kg/day albendazole treatment was initiated and finalized at 12 weeks. After 2 years of follow-up, the patient has not shown any sign of recurrence.

Hydatid cyst disease is usually asymptomatic, and is diagnosed after combined clinical, radiological, and specific laboratory tests.⁴ The metastasis of hydatid cyst in costa is generally slow, and laboratory tests are usually negative. In our case, specific laboratory studies for hydatid cyst were not performed, since thoracic wall tumor (osteosarcoma) was strongly suspected on the CT image of rib destruction, and TTFNAB was used to establish definitive diagnosis, even though guidelines recommend avoiding this technique in order to prevent tumor spread and minor or major allergic reactions.

In cases of recurrence of chest wall hydatid cyst, the fundamental principle in surgical therapy is the removal of the affected ribs or the chest wall.⁵ In our case the affected sixth rib was partially removed.

Treatment with mebendazole or albendazole is effective for pulmonary hydatid cysts in up to 70% of cases. Antihelmintics are known to cause degenerative changes in the cyst membrane and cyst rupture. Unlike the liver, the lung environment is not



Fig. 1. Chest computed tomography showing extrapleural localized mass destroying the anterior right sixth rib.

aseptic, so even if the parasite perishes, cyst membrane persisting in lung cavities can lead to secondary bacterial infection and other complications, including anaphylactic reaction, asphyxia, tension pneumothorax and massive hemoptysis. Preoperative albendazole may increase the risk of perforation in cases of pulmonary hydatid cysts, and we do not recommend this therapy. Medical treatment is recommended for patients who can not tolerate or who do not accept surgery.⁵ In our case, the treatment was finalized with postoperative oral albendazole.

Thoracic wall involvement in hydatid cyst disease is rare. For this reason, we believe this description of a definitive diagnosis of this phenomenon to be of interest, particularly in areas where hydatid disease is more frequently encountered.

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Incidental Finding of Right Pulmonary Artery Agenesis in an Adult[☆]



Hallazgo incidental de agenesia de la arteria pulmonar derecha en el adulto

To the Editor,

Pulmonary artery agenesis is a rare disease with a prevalence of 1 in 200 000 adults. It is associated with cardiovascular abnormalities, and is diagnosed in childhood. Patients can sometimes remain asymptomatic until adulthood without experiencing other complications.

We report the case of a 47-year-old man, referred to the pulmonology clinic after observation of elevated right hemidiaphragm on a routine chest X-ray (Fig. 1). The patient was a former smoker with no other history of interest. He did not report any symptoms.

Thoracic ultrasound was requested, which revealed an elevated right hemidiaphragm, with no signs of paradoxical movement.

Chest computed tomography (CT) (Fig. 1) showed findings consistent with right pulmonary artery agenesis, and an underdeveloped right lung with compensatory eventration of the contralateral lung. The examination was completed with cardiac magnetic resonance imaging (Fig. 1), which showed right pulmonary artery agenesis and partial agenesis of the right lung. The right upper lobe was draining via a single right pulmonary vein to the left atrium, with no evidence of an artery feeding that lobe, nor of shunts or other anomalies. Pulmonary hypertension was ruled out by echocardiogram.

Since the patient was asymptomatic, we decided to treat him conservatively with clinical follow-up in the pulmonology clinic.

Unilateral pulmonary artery agenesis is a rare congenital anomaly, caused by an anomaly in the rotation and migration of the sixth primitive aortic arch in the fourth or fifth week of embryonic development. Absent pulmonary artery is more frequent in the right branch than in the left. It is classified into three groups, depending on the clinical presentation¹: in group I, a left-to-right shunt develops and is diagnosed in childhood. In group II, severe pulmonary hypertension occurs and these patients generally die in the first few months of life. Group III consists of adults with few manifestations. The most common symptoms in adults are dyspnea, chest pain, hemoptysis, and recurrent infections, and 44% of patients develop pulmonary hypertension.²

This disease is generally diagnosed in childhood, in association with other cardiovascular malformations. A diagnostic suspicion in adulthood can be prompted by an abnormal chest X-ray.³ The definitive diagnostic test is CT with contrast medium and/or magnetic resonance imaging and/or angiographic studies.

There is no consensus on treatment. Some authors have recommended the use of repeated echocardiograms to monitor the development of pulmonary hypertension.⁴ In these cases, treatment with specific vasodilators or revascularization of the affected lung can improve patient progress.⁵ When lung infections are recurrent or severe hemoptysis develops, lobectomy or pneumonectomy is indicated.

Pulmonary artery agenesis, though rare, should be considered in the differential diagnosis of adults with recurrent lung infections or hemoptysis. Chest X-ray is a useful tool for the initial diagnosis,

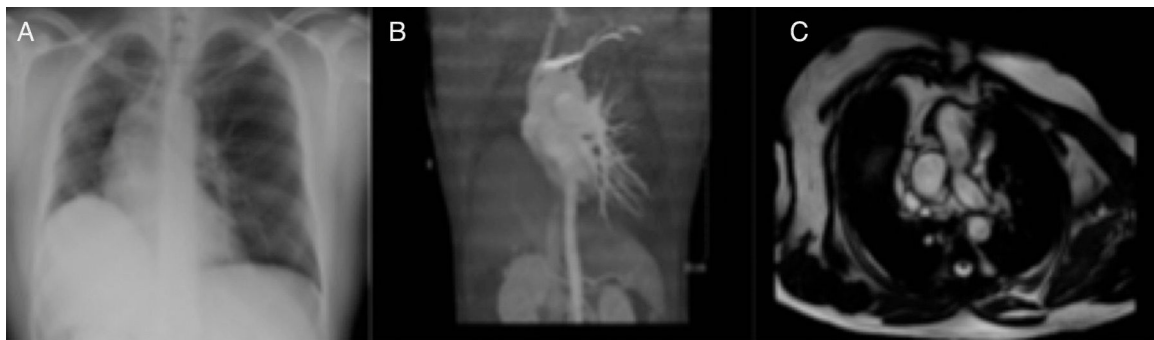


Fig. 1. (A) Chest radiograph showing elevation of the right hemidiaphragm. (B) CT reconstruction showing absence of the right pulmonary artery. (C) Cardiac magnetic resonance imaging slice with right pulmonary artery agenesis and partial agenesis of the right lung.

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