Case Report

Hydatid Cyst Presented as Pulmonary Stenosis

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A 27–years-old woman, presented with progressive dyspnea on exertion and chest pain. Transthoracic echocardiography revealed severe pulmonary stenosis. Her tranesophageal echocardiography (TEE) showed a single, large, well-defined thin wall cystic mass with pressure on the main pulmonary artery at the level of pulmonic valve that caused severe pulmonary stenosis. Computed tomography (CT) scan of chest and abdomen confirmed presence of hydatid cyst in mediastinum and liver. Serologic test using Eliza was positive for echinococcal infection. Albendazol was started for the patient and she was referred to surgeon for resection of cystic mass but the patient refused the operation.

Introduction

Cystic echinococcosis or hydatidosis is an endemic disease caused by larval forms of the tapeworm Echinococcus granulosus. Hydatid cysts may develop in any organ of human body, most frequently in the liver (69-70%) and the lungs (20-30%).[1] Up to 60% of all cystic echinococcosis cases may be asymptomatic, although several of them later enter a symptomatic stage.[2] The diagnosis is most easily set by ultrasound or other imaging techniques such as CT-scan or MRI, combined with case history.[3] Since the liver is the most commonly involved organ, symptoms leading to diagnosis mostly include abdominal pain, jaundice due to biliary duct obstruction or a palpable mass in the hepatic area.[2]

Cysts located in the lungs may cause breathing problems, cough, chest pain and hemoptysis. In this writing, we reported a case with hydatid cyst in liver and mediastinum that has been presented with pulmonary stenosis. Surgical treatment has traditionally been the mainstay of the therapy,[3] with a recurrence rate of approximately 10-15%. Medication is a viable option to prevent the recurrence of the cyst following surgery. or diastole. Consult with cardiac surgeon was done but the patient refuse from the operation.

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Case report

A 27–years-old woman, referred to cardiology clinic due to gradually progressive dyspnea on exertion and chest pain. Physical examination revealed harsh systolic murmur at the upper left sternal border and right ventricular heave. Electrocardiography (EKG) showed right ventricular hypertrophy. In chest X-ray mediastinal widening was detected. Transthoracic echocardiography revealed normal left ventricular function, right ventricular hypertrophy,

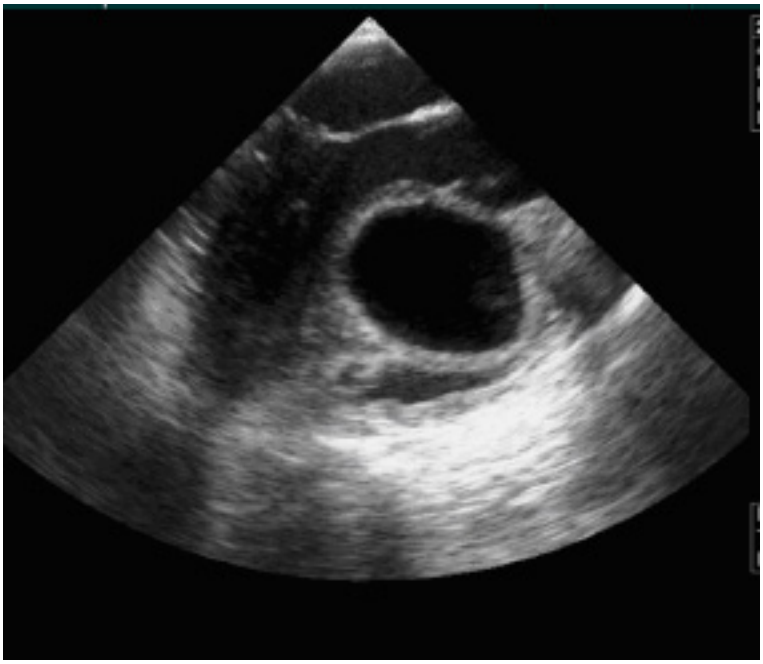

Figure1. Transesophagial echocardiography shows a large hydatid cystic that contained some small daughter cyst with pressure on the main pulmonary artery at level of pulmonic valve.

severe pulmonary stenosis and so she was referred for TEE for better evaluation of pulmonic valve and right ventricular out flow tract. Transesophageal echocardiography showed right ventricular hypertrophy and single, large, well-defined thin-wall cystic mass that contained some small daughter cyst with compression of main pulmonary artery (Fig. 1), producing se-

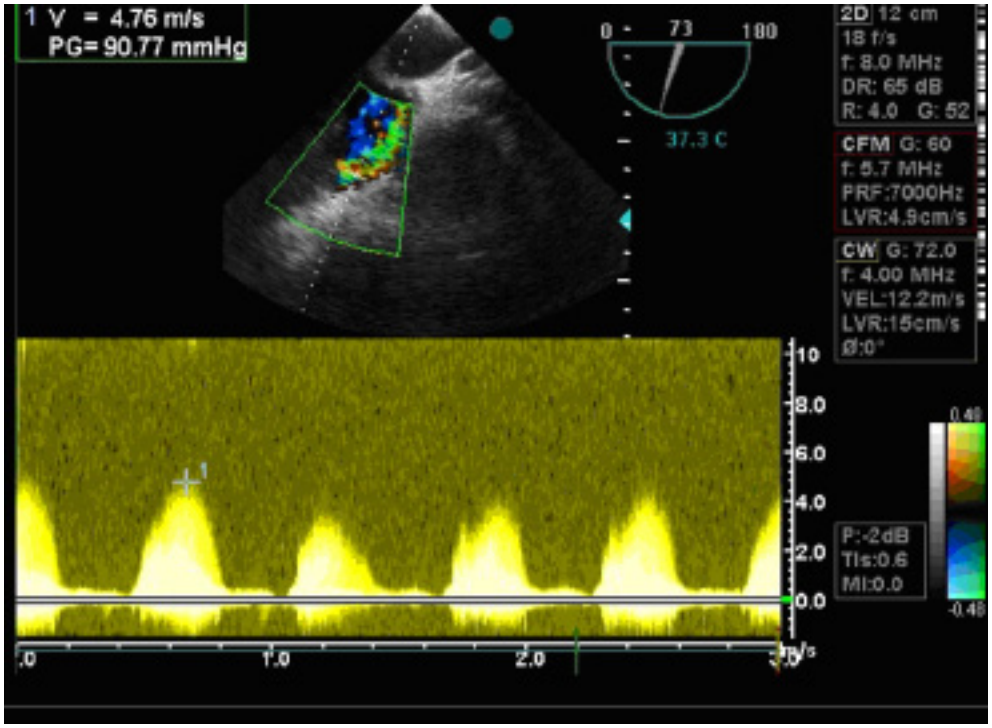

Figure 2. Color Doppler echocardiography shows severe pulmonary stenosis with maximum pressure gradient of 90 mmhg.

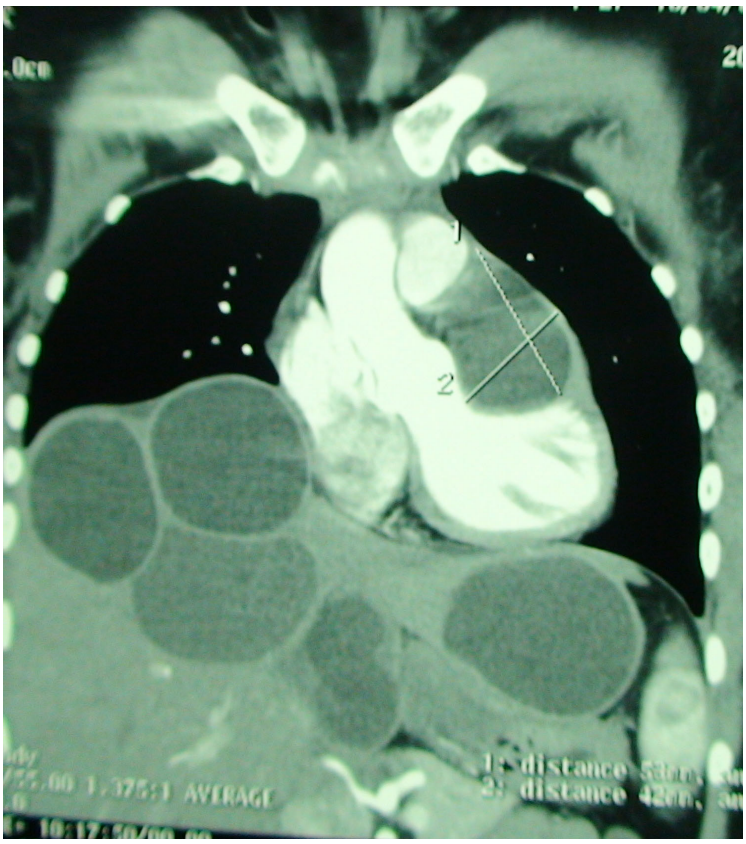

Figure3. Computed tomography (CT) scan shows a large, single hydatid cyst in mediastinum and large multiple hydatid cyst in liver.

vere pulmonary stenosis with maximum pressure gradient of 90 mmhg(Fig. 2). Computed tomography (CT) scan of chest and abdomen showed a large, single hydatid cyst in mediastinum and large multiple hydatid cyst in liver (Fig. 3). Serologic test using Eliza was performed which was positive for echinococcal infection. Albendazol was started for her and she referred to surgeon for resection of cystic mass but the patient has until now refused to be operated upon.

Discussion

E. granulosus is an important zoonotic pathogen causing serious disease in humans living in hyper endemic areas. Diagnosis should be considered in patients coming from an endemic area. The liver and the lungs are the most common sites of these cysts [1]. Liver hydatid cysts are often diagnosed incidentally, at a rate of 75%, without any symptoms.[4] Disease symptoms arise as the cysts grow and erode or compress blood vessels or other organs. Hydatid disease of lung or liver is generally asymptomatic but can cause serious complications if rupture of the cyst occurred. Most presenting features are caused by the pressure of enlarged cyst on its surroundings, and also rupture of a cyst. Metastases in brain or lungs give symptoms as cough, hemoptysis, paralysis or mental confusion.[5] It is frequently mistaken as cancer. The time at which a previously silent cyst gives rise to clinical manifestation depends both on the size of the cyst, and its location, making presenting symptoms of cystic echinococcosis highly variable. In this

case the patient referred with chief complaints of progressive dyspnea on exertion and chest pain with echocardiographic diagnosis of hydatid cyst compressing the main pulmonary artery. Further work-up confirmed hydatid cyst. Surgery has traditionally been the principal definitive method of treatment.[6] Albendazol[7] which is active against echinococcus, shoud be administered adjunctively, beginning several days before resection and continued for several weeks.

Acknowledgements

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