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CAZURI CLINICE

Multiple Mediastinal Hydatid Cysts: a Case Report

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REZUMAT

Chiste hidatice mediastinale multiple: prezentare de caz

Chistele hidatice mediastinale (CHM) sunt foarte rare. După cunoștințele noastre, nu a mai fost raportat vreun alt caz de CHM multiple în literatura de specialitate.

Prezentăm mai jos cazul unei paciente de 50 ani cu CHM multiple, care s-a prezentat pentru durere toracică, tuse și dispnee datând de circa 2 ani. A fost tratată de tuberculoză în urmă cu 20 de ani. CT toracic a arătat prezența a numeroase chisturi în mediastinul posterior și a unui chist în lobul stâng hepatic. S-a intervenit chirurgical prin toracotomie posterolaterală dreaptă și au fost excizate numeroase chisturi din mediastin. Ulterior a fost înlăturat și chistul hepatic, transdiafragmatic.Examenul histologic a confirmat diagnosticul de CHM. Deși rare, CHM primare trebuie avute în calcul în diagnosticul diferențial al chistelor mediastinale multiple în țările în care această afecțiune este endemică.

Cuvinte cheie: *echinococoză, chist hidatic, chisturi mediastinale*

ABSTRACT

Hydatid cyst (HC) in mediastinum is very rare. To the best of our knowledge, a case with multiple HCs in mediastinum is not reported already.

We herein report a case of multiple HCs of the mediastinum and liver in a – 50 year—old woman presented with chest pain, cough and dyspnea for about two years. She had been treated for tuberculosis for 20 years. Chest CT scan showed multiple cysts in posterior mediastinum and one cyst in left lobe of liver. Via right posterolateral thoracotomy, multiple cysts were excised in mediastinum. And then, hepatic left lobe cyst was removed trans-diaphragmatically. Histopathologic examination confirmed HCs. Despite its rarity, primary HCs should be considered in the differential diagnosis of mediastinal multiple cystic lesions in endemic regions.

Keywords: *Echinococcosis, hydatid cyst; mediastinal cysts*

Introduction

Hydatid disease has been well known as an important clinical entity since ancient times. It is caused by cystic growth infection with the metacestode stage of the tapeworm Echinococcus which belongs to the family Taeniidae. It is still a serious health problem in the Mediterranean countries.

The most common sites for hydatid cyst (HC) are the liver (59-75%), lung (27%), kidney (3%), bone (1-4%) and brain (1-2%). However HCs may develop in almost any part of the body except the hair, teeth and fingernails. HC in the mediastinum is very rare- comprising 0.5% of intrathoracic and less than 0.1% of all HCs cases. We weren't able to find any report of multiple HCs in mediastinum. This article reports a unique case of multiple HCs in mediastinum that one of them were extened trans-diaphragmatically from liver.

Case Report

A 50 year-old woman presented with complaint of dyspnea, cough and chest pain for two years. She had a history of treatment for pulmonary tuberculosis 20 years ago, so her symptoms were attributed to tuberculosis sequels. Physical examination was unremarkable.

Chest X-ray showed bilateral multiple pleuropulmonary calcifications and retrocardiac opacity (figure 1).

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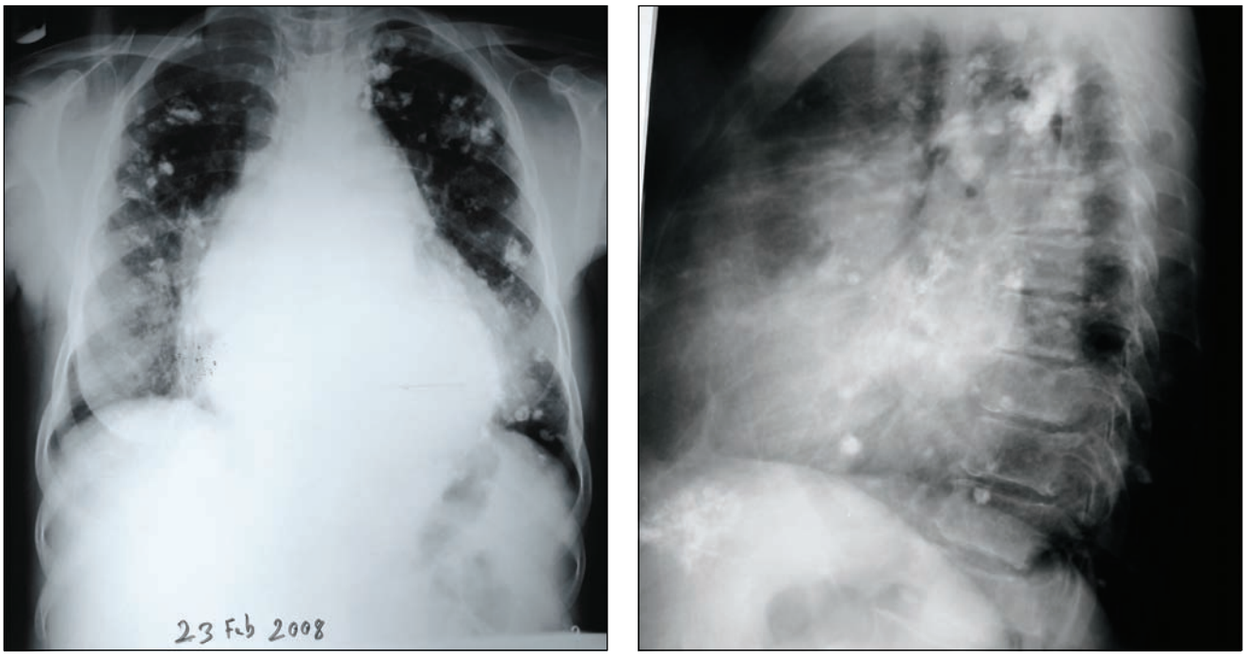
Figure 1a, b.
Chest X ray posterio-anterior and lateral shows multiple pleuropumonary calcification with retrocardiac density.



Contrast enhanced computerized tomography showed multiple cysts in posterior mediastinum (figure 2) with a cyst in the left lobe of liver.

Right posterolateral thoracotomy was performed. Multiple cystic masses were identified in the posterior mediastinum. Cysts have adhesions to esophagus and aorta. After packing of the field with saline soaked long gauze aspiration of one of cysts showed clear fluid and diagnosis of hydatid cyst was done. Total excision of cysts was performed.

And then the cyst of left lobe of liver was removed transdiaphragmatically. The histopathology examination confirmed the diagnosis of HCs.

The patient received postoperative albendazol (400 mg twice a day) for three months. In follow up examinations, patient condition was well.

Discussions

We presented a patient with multiple HCs in mediastinum. Cystic lesions account for up to one-fourth of all mediastinal masses. Cysts in adults and children are bronchogenic, pleuropericardial, thymic, intramural, oesophageal, anterior meningocele, lymphangioma, and enteric origin, as well as other rare types. Whenever a mediastinal cyst is found in countries where HC is endemic, the possibility of a mediastinal HC should be considered.

In one study by Thameur et al, out of 1619 intrathoracic HCs only eight (0.5%) were in the mediastinum.

In mediastinal HCs, the symptoms depend on the location, size, and involvement of adjacent structures. Exertional dyspnea, retrosternal or parasternal chest pain, cough, dysphagia, pericardial tamponade, superior vena cava syndrome, and Horner's syndrome. The most serious complication is a cyst rupture with the consequent transfer of hydatid material into the blood which may lead to anaphylactic shock and even death.

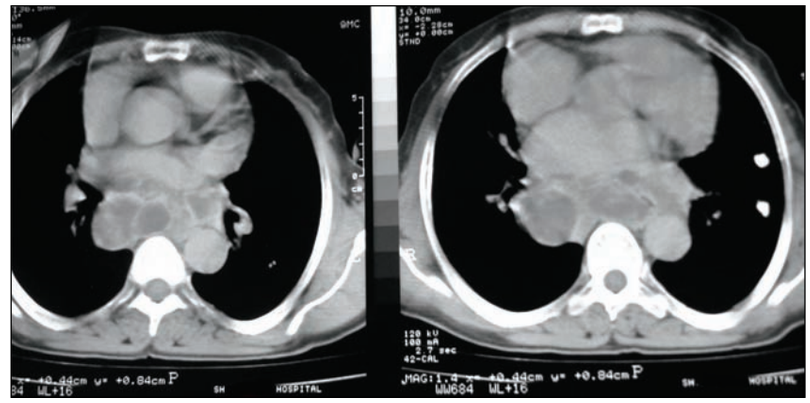
Three types of HC have been explained. Type I appears as a well-defined round or oval cystic mass with an attenuation density close to that of water (3-30 HU). In type II, many daughter cysts and/or matrix develop within the parent cyst with or without cyst wall calcification. Type III represents a calcified non-viable degenerated cyst. Complications of HC include rupture and super-infection of type I and II cysts. In contrast to the pulmonary HCs, mediastinal HCs frequently progress to calcification due to a lack of any relationship with ventilation.

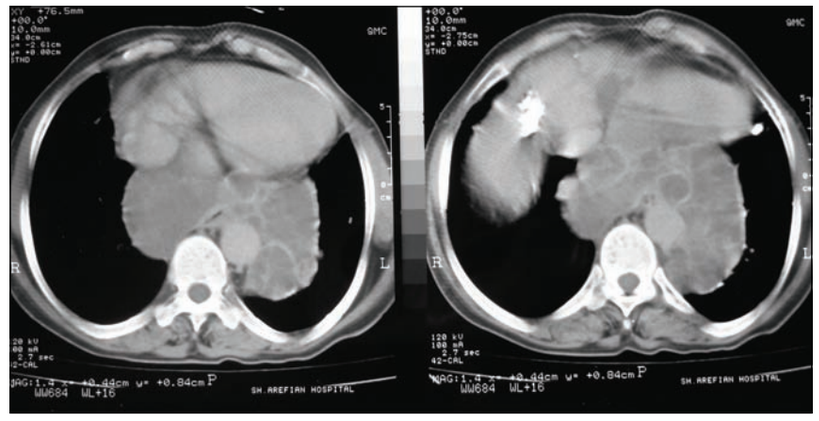
Differentiation of HCs from other cystic disease may be extremely difficult. Intrathoracic extrapulmonary HC should be suspected whenever another organ is involved with HCs. Diagnosis can be reached with combined assessment of clinical, radiological, historical and laboratory data.

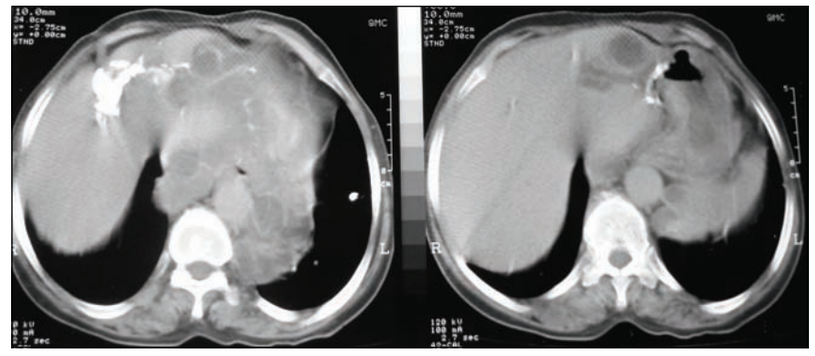
The gold standard for treatment of HCs is radical removal of the germinative membrane and pericyst. When the localization of the cyst and invasion to the vital structures prevent the total excision, partial pericystectomy is the treatment of choice after the removal of germinative membrane. The percutaneous treatment has been used in some centers as an alternative to surgery. The safe technique for percutaneous drainage is called PAIR which stands for **p**uncture, **a**spiration of cyst, **i**njection of scolicidal agents (hypertonic saline and absolute alcohol), and **r**easpiration. PAIR is not recommended for pulmonary cysts.

The aim of this article is to make the reader aware of such rare presentation of HC especially in endemic areas and to include HCs in differential diagnosis of multiple cysts in mediastinum.

Figure 2 a, b, c.
Chest CT scan shows multiple cysts in mediastinum and left lobe of liver







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