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A Primary Mediastinal Hydatid Cyst: a Case Report*

Bir Primer Mediastinal Kist Hidatik Olgusu

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Abstract

Hydatid disease is rarely present in the mediastinum although many common locations of the disease have been reported. We present a 53 year old woman with a mediastinal cyst referred to our clinic. The patient had dyspnea and cough. Fiberoptic bronchoscopy revealed a compression on the right main bronchus. The cyst was removed via thoracotomy. Cystotomy was performed. Mediastinal hydatid cyst should be in the differential diagnosis of mediastinal cysts.

Key words: *Bronchial cyst, Hydatid cyst, mediastinum.*

Özet

Hastalığın yaygın lokalizasyonları bildirilmiş olmakla birlikte hidatik hastalık mediastende oldukça nadirdir. Kliniğimize refere edilen mediastinal kisti olan 53 yaşında bayan hastayı sunuyoruz. Hastanın nefes darlığı ve öksürüğü mevcuttu. Fiberoptik bronkoskopide sağ ana bronşa kompresyon izlendi. Kist torakotomi yoluyla çıkartıldı. Kistotomi uygulandı. Mediastinal kist hidatik mediastinal kistlerin ayırıcı tanısında yer almalıdır.

Anahtar Sözcükler: bronşial kist, hidatik kist, mediasten.

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Mediastinal cysts are commonly encountered group of neoplastic, congenital, and inflammatory conditions and account for 20 to 32% of all primary mediastinal masses (1). Mediastinal hydatidosis among mediastinal cysts is even rarer and responsible for less than 0.1% of all hydatid diseases (3,4). So far, nearly 100 cases with mediastinal hydatid disease have been described in medical literature among the intrathoracic hydatid cysts and the incidence of mediastinal echinococcosis is about 0.1-0.5% (2). We present a case with mediastinal hydatidosis located in the posterior mediastinum, mimicking a bronchogenic cyst.

CASE

A 53 year old woman who had shortness of breath and cough for about 2 weeks has been referred to our department with a prediagnosis of posterior mediastinal cyst. On physical examination, the patient had only bilateral sibilant rhonchi on the lung bases. Laboratory examination was normal. There was no eosinophilia and the serology for hydatid disease was negative. Bronchoscopic examination revealed a narrowed right main bronchus with normal mucosa (Figure 1).

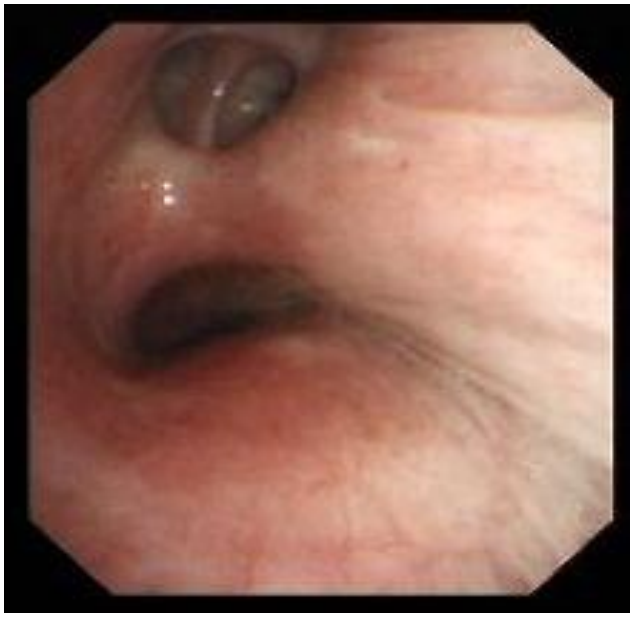

Figure 1. Fiberoptic bronchoscopy showing extrabronchial compression on the right main bronchus

Chest computed tomography (CT) and magnetic resonance imaging (MRI) disclosed a cystic postero-inferior mediastinal cyst, 5.2x7.5cm in diameter, located on the right side between the right pulmonary artery and the esophagus (Figure 2-3).

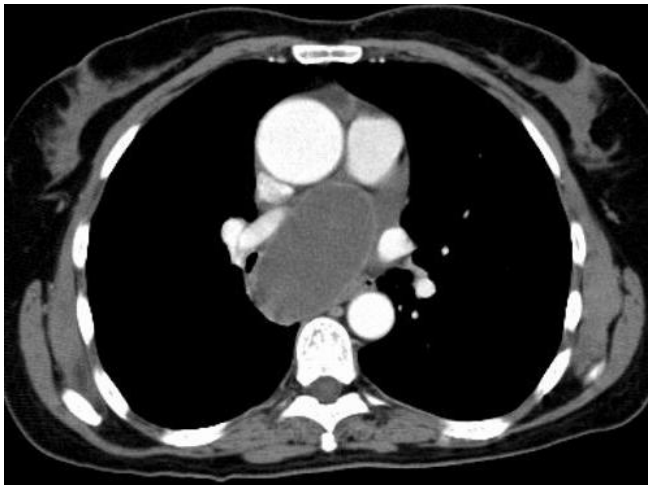

Figure 2. Chest CT scan demonstrating a mediastinal mass

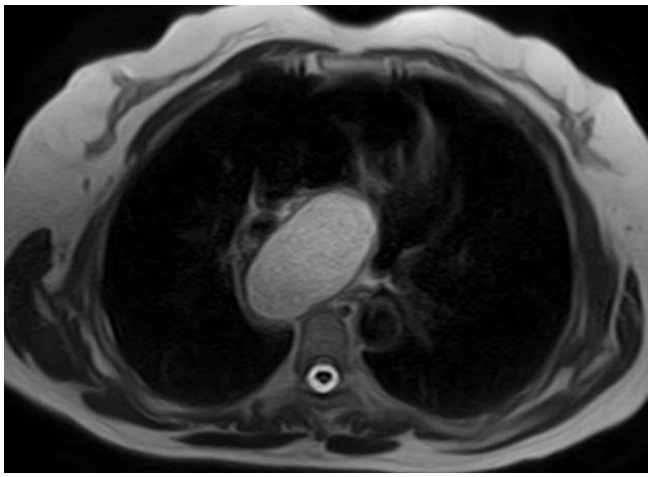

Figure 3. Chest MRI showing a mediastinal cystic mass

The abdominal ultrasonography examination showed no cysts in the liver. Later surgery was performed. Through a right posterolateral thoracotomy, a well-defined, capsulated cyst was exposed in the mediastinum. The cyst was first punctured and the infected fluid inside was aspirated by using a needle. Cystotomy was performed. The postoperative period was uneventful and the patient was discharged 5 days after the operation. An antihelmintic therapy (10 mg/kg albendazole) was administered for six months postoperatively. There was no recurrence of the disease during a year follow-up period (Figure 4).

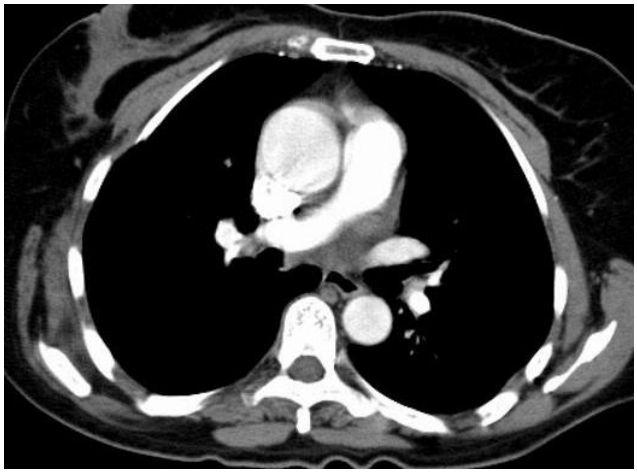

Figure 4. Chest CT scan of the patient after operation

DISCUSSION

Hydatid cysts are mostly encountered in the liver, lungs, and the brain. Although many different locations have been reported, the disease is rarely seen in the mediastinum (5). It is considered that the parasite may reach to the mediastinal region via an arterial branch of the thoracic aorta or lymphatics (1). Mediastinal hydatid cysts are usually isolated and primary type. The symptoms in patients with a mediastinal cyst may range from a retrosternal pain, cough, and dysphasia to dyspnea. The symptoms related to a severe compression on the trachea and superior vena cava may be present (6). Hemoptysis may occur if a cyst involves the pulmonary vessels. In our case, the patient had dyspnea and cough due to the compression on the right main bronchus.

Mediastinal echinococcosis couldn't clinically and radiologically distinguishable from other mediastinal cystic lesions. Chest CT or MRI is helpful in discriminating cystic lesions from solid masses, and in demonstration of invasion of the mediastinal organs. Serological tests are often negative when the cyst is intact and uncomplicated. Fine needle CT guided aspirations still considered dangerous however it can be useful for diagnosis despite the risk of dissemination and anaphylactic shock. In our patient, the chest CT disclosed the mass had cystic characteristics and MRI also confirmed the cystic nature of the mass and there was no invasion into the surrounding structures. However, the final diagnosis was made during surgery in our patient.

Mediastinal hydatid cysts may sometimes complicate. It may fistulize into the pleural or pericardial cavity, rupture into bronchi, and massive bleeding may also occur (7,8). For these reasons, surgical intervention for mediastinal cysts is indicated. The standard therapy is removal of the germinative membrane and pericyst (8). Albendazole has been used as primary drug therapy and as an adjunct to surgery to diminish recurrence and spread of the organism (9). In our patient after aspiration of the infected fluid, the germinative membrane was removed and a cystotomy was performed.

CONCLUSION

Mediastinal hydatid cyst is a rare condition that should be considered in the differential diagnosis of mediastinal cysts.

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