



Hydatid Cyst Mimicking the Pancoast Tumor

Pancoast Tümörünü Taklit Eden Hidatik Kist

Hydatid Cyst Mimicking the Pancoast Tumor

Hakan Keskin, Şirin Akdeniz, Makbule Ergin, Sermin Tayfun, Abdullah Erdoğan
Göğüs Cerrahisi ABD, Akdeniz Üniversitesi Tıp Fakültesi, Antalya, Türkiye

Türk Toraks Derneği 19. Yıllık Kongresinde poster sunumu olarak sunulmuştur. 6-10 Nisan 2016 Antalya, Türkiye

Öz

Elli sekiz yaşında kadın hasta, sol kol ve omuz ağrısı ile kliniğimize başvurdu. Yapılan tetkikleri sonucunda sol akciğer üst lob apikal segmentte vertebra destrüksiyonuna yol açan kitle tespit edildi. Pancoast tümörü olarak opere edilen ancak intraoperatif hidatik kist olduğu saptanan hasta, nadir gözükmesi ve endemik bölgelerde kist hidatik tanısının ön tanılar arasında akılda tutulması gerekliliğini vurgulamak amacıyla sunuldu.

Anahtar Kelimeler

Akciğer; Hidatik Kist; Pancoast

Abstract

A fifty-eight-year-old female patient was referred to our clinic with left-sided arm and shoulder pain. Upon radiological investigation, a mass in the apical segment of the left upper lobe causing vertebra destruction was detected. The patient was operated on with a working diagnosis of a Pancoast tumor. However, during the operation the lesion was identified as a hydatid cyst. This case report aims to emphasize that, despite its rarity, hydatidosis should be included among the differential diagnosis of Pancoast tumors in endemic regions.

Keywords

Lung; Hydatid Cyst; Pancoast

DOI: 10.4328/JCAM.4869

Received: 24.11.2016

Accepted: 19.01.2017

Printed: 01.02.2017

J Clin Anal Med 2017;8(suppl 1): 32-4

Corresponding Author: Hakan Keskin, Göğüs Cerrahisi ABD, Akdeniz Üniversitesi, Antalya, Türkiye.

GSM: +905057966997 E-Mail: opdrhakankeskin@hotmail.com.tr

Introduction

Hydatidosis is a zoonotic parasitic disease caused by *Echinococcus granulosus* and characterized by cystic lesions. Hydatid disease is seen worldwide and is especially prevalent in developing countries and in countries with widespread animal husbandry [1].

In adults, the liver (65-80%) and lungs (10-25%) are most often involved, whereas other organs are less often afflicted [2]. Cases with hydatid cysts located in the chest wall are rarely encountered. The focus in this area can be soft tissue, sternum, or ribs. Involvement of vertebrae is even more infrequent [3]. Although hydatidosis is generally considered easy to diagnose and treat, cases with atypically located cysts can prove difficult. Such cases are often diagnosed during surgery [2,4,5]. We present our case for two reasons: Because vertebral destruction is extremely rare and because hydatid cysts should always be kept in mind to prevent accidental spilling, since the case was diagnosed during surgery.

Case Report

A female patient age 58 was referred to the Thoracic Surgery outpatient clinic for arm and shoulder pain that had been gradually increasing for a year. Chest x-ray and computed tomography of the chest revealed a cystic mass lesion in the apical segment of the upper left lobe, with destruction of the second thoracic vertebra (Image 1). Since it was a nonhomogeneous lesion, differential diagnosis included malignancy, so a positron emission tomography (PET) scan was done and a maximum standardized uptake value of 5 was reported. The primary diagnosis was Pancoast tumor. However, findings on the PET scan did not warrant any invasive staging. There was no invasion of the first rib, nor was there any invasion of the brachial plexus or nearby vascular structures. Therefore, magnetic resonance imaging of the chest was not requested. Diagnostic bronchoscopy was performed. Endobronchial lesions were not observed. Bronchoalveolar lavage was performed. In the pathology report, atypical cells were not reported. Because the primary diagnosis was a Pancoast tumor, a left thoracotomy was performed after preoperative evaluation and preparation. During the operation, exploration showed a lesion of cystic nature. The cyst contents were aspirated, yielding a clear fluid. It was thought to be a hydatid cyst. Before cystotomy, hypertonic saline soaked sponges were placed around the cyst to protect the surgical field outside of the cyst from accidental spillage of cyst contents. With necessary precautions taken, the cystotomy was done, and we saw that there were numerous daughter vesicles, some of which had caused destruction of the second vertebral body (Image 2). Because destruction of the vertebral body was not to the extent of destabilization, there was no need for further intervention. After obtaining hemostasis, the operation ended uneventfully. There were no postoperative complications, and the patient was discharged on day six. Pathological investigation of surgical specimens confirmed *Echinococcus granulosus* infestation.

Discussion

Since the first renal hydatid cyst reported in 1702, hydatid disease has been known to involve various organs in the body [6]. Symptoms and signs vary according to the localization and



Image 1. Computed tomography of the chest, showing mass lesion in the apical segment of left upper lobe, with destruction of second vertebra.

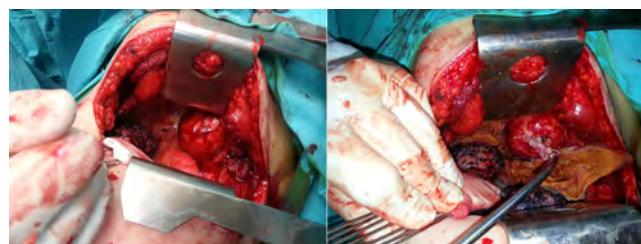


Image 2. Intraoperative view of the mass lesion causing vertebra destruction, and removal of the germinal membrane.

size of cysts. Small and peripherally located cysts tend to be asymptomatic. Hydatid disease in the thoracic region is usually intraparenchymal. Extrapulmonary intrathoracic cysts may cause dysphagia or dyspnea due to mass effect on esophagus or trachea [2,4]. It may be difficult to diagnose atypically located complicated hydatid cysts. In these cases, the most frequent complaints are dyspnea and cough. Our patient was diagnosed as Pancoast tumor because of arm and shoulder pain.

Review of the literature shows very few cases of hydatid disease mimicking Pancoast tumor and causing bone destruction. These patients' symptoms were similar to Pancoast tumor. Outcomes after surgical treatment are extremely favorable, as in our case.

While bone involvement in hydatidosis is reported to be between 0.9-2.0% intrathoracic extrapulmonary bone involvement is very rare [7]. In the presented case, there was invasion of the second vertebral body only, with no invasion of the first rib.

The most important diagnostic imaging techniques are radiography, computed tomography, and magnetic resonance imaging. Further imaging studies such as positron emission tomography should be performed if malignancy cannot be ruled out. There are very few cases similar to ours that mimic Pancoast tumor [2, 8]. The case we have presented was thought to be a Pancoast tumor and operated on as such. During the operation, the mass was identified as extrapulmonary and of cystic nature. Therefore it was thought to be a hydatid cyst and a cystotomy was done.

In conclusion, it should be remembered that, although lung hydatidosis is a benign pathology, it can imitate lung malignancies both clinically and radiologically. It should be included among the differential diagnosis of malignancy, especially in endemic regions.

Competing interests

The authors declare that they have no competing interests.

References

1. İncekara F, Gülhan E, Üstün LN, Yazıcı Ü, Aydoğdu K, Fındık G ve ark. Torakal yaklaşım ile akciğer, karaciğer ve dalak kist hidatiklerinin cerrahi tedavisi. *Türk Gogus Kalp Dama* 2014;22(1):104-11.
2. Ceylan KC, Akpınar D, Polat H, Samancılar Ö, Usluer O, Alper H ve ark. Pulmoner arterin kist hidatiği. *Türk Gogus Kalp Dama* 2014;22(1):202-4.
3. Altuntaş B, Ceran S, Şener E. Unusual location of hydatid cyst: thoracic outlet. *Türk Gogus Kalp Dama* 2015;23(1):171-3.
4. Ulku R, Eren N, Cakir O, Balci A, Onat S. Extrapulmonary intrathoracic hydatid cysts. *Can J Surg* 2004;47:95-8.
5. Pekmezci S, Kılıc İE. The diagnosis of the hydatid disease: imaging methods, serological and cytopathological examinations. *Türkiye Klinikleri J Surg Med Sci* 2006;2:13-6.
6. Durakbasa CU, Tireli GA, Sehiralti V, Sander S, Tosyalı AN, Mutus M. An audit on pediatric hydatid disease of uncommon localization: incidence, diagnosis, surgical approach, and outcome. *J Pediatr Surg* 2006;41:1457-63.
7. Oguzkaya F, Akcalı Y, Kahraman C, Emirogulları N, Bilgin M, Sahin A. Unusually located hydatid cysts: intrathoracic but extrapulmonary. *Ann Thorac Surg* 1997;64:334-7.
8. Ozpolat B, Ozeren M, Soyal T, Yücel E. Unusually located intrathoracic extrapulmonary mediastinal hydatid cyst manifesting as Pancoast syndrome. *J Thorac Cardiovasc Surg* 2005;129:688-9.

How to cite this article:

Keskin H, Akdeniz Ş, Ergin M, Tayfun S, Erdoğan A. Hydatid Cyst Mimicking the Pancoast Tumor. *J Clin Anal Med* 2017;8(suppl 1): 32-4.