HYDATID CYST OF THE LIVER WITH RUPTURE INTO BRONCHI (Case Report)

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SUMMARY

Hydatid disease (echinococcosis) is characterized by worldwide distribution and frequent hepatic involvement . In this case report , a liver hydatid cyst, located at the dome, and ruptuing into the bronchial tree was reported. The clinical presentation and management of this complication was discussed..

Key Words: Hydatid cyst, complication

BRONŞA AÇILMIŞ BİR KARACİĞER HİDATİK KİSTİ OLGUSU

ÖZET

Hidatik kist hastalığı tüm dünyada görülmektedir ve en sık yerleştiği organ karaciğerdir. Bu olgu sunumunda bronşa açılmış karaciğer kubbesi yerleşimli bir hidatik kist takdim edilmektedir. Bu hastalığın klinik bulguları ve bu olguda görülmüş olan komplikasyonun tedavisi literatür ışığında tartışılmıştır.

Anahtar Kelimeler:Kist hidatik, komplikasyon.

Since liver hydatids usually continue to grow after a number of years the possibility of developing complications increases.These complications with the incidence of 6-19 %, include development of cyst-biliary communications, intrabiliary, intraabdominal, intrathoracic rupture and, infection of the cyst. The incidence of rupture into the bronchial tree has been reported as 3 % (1-4).

CASE REPORT

A 68 -year-old woman was admitted with malaise, pain in the right upper abdomen, fever, shortness of breath and, expectoration of bile-stained sputum. On physical examination, a painful hepatomegaly approximately 6 cm excessing the right costal margin on the mid-clavicular line and absence of breath sound at the base of the right hemithorax.

The chest X-ray revealed the inflammatory changes in the right lower lobe of the lung (Figure 1). Computed tomographic investigation of the abdomen and thorax showed a cystic mass, 15 cm in diameter, located at the dome of the liver, infiltrating the diaphragma and communicating with the base of the right lung (Figure 2 and 3). The spesific tests for hydatid disease were not performed. She coughed up daughter cysts once just before the operation day which made us sure about the abnormal communication between the biliary tract and bronchial tree.

An abdomino-phreno-thoracotomy incision was made. At the first step of the operation, the communication between the cyst, diaphragma and lung was broken down. The bile-stained pus containing liver cyst was dealt by evacuation of cyst content through a cystostomy including daughter cyst and germinative membrane after injection of Bethadine as a scolocidal agent. Two small opening into the biliary system were sutured. Omentoplasty and drainage were performed . At the second step of the operation, the diaphragmatic rupture was repaired in layers and finally the bronchial opening was closed and the pleural cavity was drained by water seal drainage for possible air leakage. Postoperative period was uneventful and thorax drain and abdominal lodge drains were removed on the seventh and tenth days, respectively. At the time of writing, the patient has been symptom free and has not shown any recurrence since her operation a year ago .

DISCUSSION

The most frequent cause of the liver cysts is Echinococcosis and the most common infective agent is Echinococcus Granulosus (EG). The mainly affected organs are liver and lungs followed by spleen, kidney, bones, muscle and, nervous system, pancreas and, heart. Besides, some extremely unusual primary locations like retroperitoneal space, seminal

submandibular salivary gland and ischiorectal fossa were reported (5).

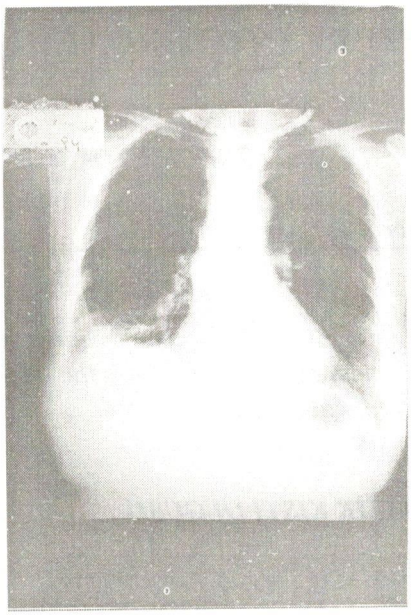

Figure 1 . The chest radiography shows the inflammatory changes in the right lower lung due to complicated dome located hydatid cyst of the liver.

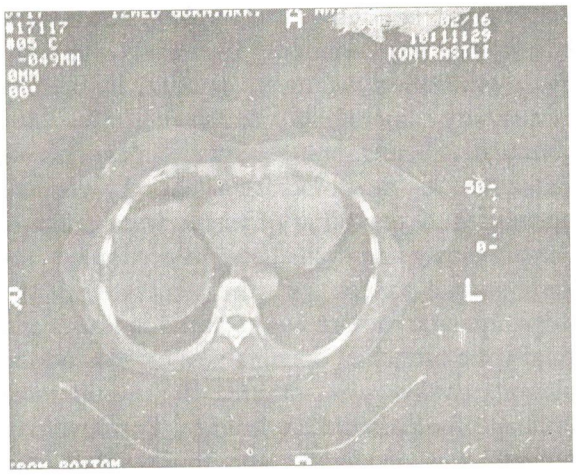

Figure 2 . Computed tomography of the abdomen shows the dome located liver hydatid cyst which is 15 cm in diameter.

The common presentation of an EG cyst is as a mass in the affected viscera and occassionally a form of a complication. Approximately 70 % of hydatid cycsts are located in the liver and the right lobe is affected in 85 % of patients. The most common complication of those is intrabiliary rupture which occurs in 5 to 10 % of cases followed by suppuration. A hydatid cyst which locates at the dome of the liver may rupture into the thoracic cavity eroding the diaphragma. The incidence of this complication was reported as 3 % in large series (3 , 6) . .After years of time, a dome located cyst may communicate with biliary tree and becomes infected. Infected cyst enlarges and causes pressure on the adjacent diaphragma. This makes diaphragmatic muscles weaker which results in rupture into the thoracic cavity . Since there are usually adhesions between the base of the lung and diaphragma due to the pre-existing pleural adhesions, cyst rupture directly into the bronchial tree. Otherwise, the rupture may be into the pleural cavity or pericardium (2 ,6).

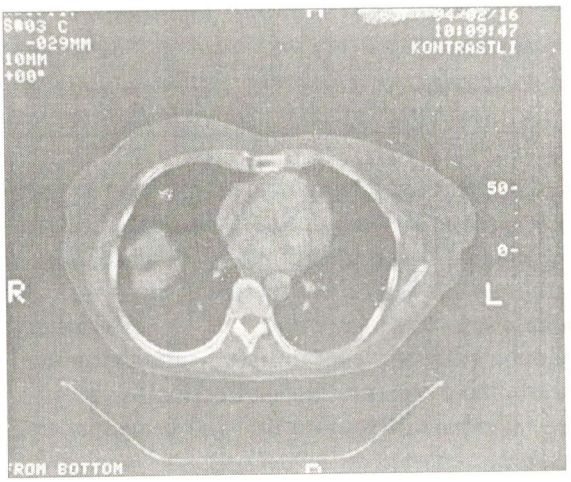

Figure 3 . Computed tomography of the thorax shows the right lower lobe consolidation which is 4.5 cm in diameter and lineer hypodense area presumably resembling the bronchial opening

If a cyst ruptures into a bronchi, gas may be noted in the remaining cycst cavity radiographically. Computerized tomography scans furnish useful information and correlate well with the operative findings. Eosinophilia is the least reliable of immunologic responses which was not observed in our findings.The characteristic presentation of this complication is expectoration of bile stained sputum and sometimes daughter cysts and parts of germinative membranes.In the present case, the classical pathophysiologic

progress and clinical presentation was detected. That is why, no further investigation was required.

The immediate surgical intervention is necessary if rupture occurs directly into the pleural cavity. In those cases, there is generally enough time to prepare the patient for surgery. The thoracic or abdomino-thoracic approach may be preferred regarding to the consideration of any intervention towards the biliary tree. After dealing with cyst, diaphragma is repaired. The use of the resection of the effected part of the lung is limited as it is difficult to do. The water-seal drainage of the pleural cavity will generally suffice (6).

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