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What Can Hide a Lumbar Abscess? Unusual Association

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Abstract

Liver hydatid is a disease parasite infestation caused by the larval stage of genus *Echinococcus granulosus*. It has a worldwide distribution as a result of more global travel. The liver is the most common site of hydatid disease [1]. We managed a pediatric case that combined two complications at one time. This case reported includes first spontaneous cutaneous fistulization of liver hydatid cysts and secondly in the pleural cavity the diagnosis has been established by the ultrasound imaging of the abdomen and the CT scan. Surgery is required to achieve complete evacuation of the cyst contents and resolution of the residual cavity. This presentation seems rare. To the best of our knowledge, this is the fourth case published.

Keywords: *Echinococcus granulosus*; Liver hydatid; Spontaneous cutaneous fistulization; Pleural cavity

Introduction

Hydatid liver disease is the most frequently infestation caused by genus *Echinococcus granulosus* [1]. Complications like cyst rupture and infection may occur, sites of rupture including: bile ducts, gastrointestinal tract, bronchic, peritoneal and pleural cavity [2]. Rupture into the subcutaneous tissue followed by external fistula and the involvement in pleural cavity is an extremely rare presentation [3]. We reported a pediatric case who presented this combination. The aim of this study is to consider the parietal complications of the hydatid cyst of the liver associated to pleural one.

Case Presentation

A 14 years old girl presented a painful lumbar masse with a discharge of fluid pus. Clinical checkup found a high fever 39.5, cutaneous mucosa pallor and lumbar masse redness; swelling in or around (Figure 1).

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Copyright © 2020 Najlae Zaari. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. Ultrasound examination showed hydatid cyst in segment IIV; IV of liver forming a fistula opening at the pleural cavity and following into a cyst in the lumbar side. CT scan has gift a cartography illustration of the fistula and of the hydatid cyst confirming the diagnosis of infected of the liver hydatid associated with its fistulization in lumbar side also in pleural cavity (Figure 2).

An under costal laparotomy was done under general anesthesia. After opening the abdomen one large cyst was founded in the right liver lobe. This one was forming a cutaneous fistula at the lumbar side and in the pleural cavity. After sterilization of the entire cavity with hypertonic saline. Liver hydatid was aspirated. The cyst was opened with a small incision and a suction tip was introduced to evacuate the remaining fluid. Proligerous membrane was easily removed after widening the incision and visible biliary opening were sutured (Figure 3). Resection of rounded roof projection







Figure 2: Scannographic picture of the liver hydatid with parietal fistula.



and excision of the fistula tract a drain was inserted in the peritoneum near the residual cavity in the liver. Postoperatively, the patient was given antibiotics for 10 days the laparotomy and the lumbar fistula site healed well after surgery. Follow up checkup control did not reveal recurrence of the disease.

Discussion

Hydatidosis, a zoonotic infection is due to the larval stage of tapeworm *Echinococcus* this infection is acquired through infestation of parasite egg released in feces of the definite host bearing the adult worm in it gut [3]. The disease can be developed anywhere in the human body it also has a worldwide distribution due to increasing migration and growing global travel [4]. In Morocco it's an endemic disease.

The most frequently involved organ is the liver (52% to 77%). Its can because complication in about 40% cases the common complications are infection or rupture into the biliary tree. Whereas rupture in pleural cavity and the spontaneous cutaneous fistulization are exceptionally rare one by one [5], the association of both is more rare. Thoracic complications of hepatic hydatid cyst result from the proximity of hydatid cyst in the liver and the diaphragm. Spontaneous cutaneous fistulization of hydatid liver is one of the exceptional presentations [6]. It's different than the direct rupture in the abdominal tissue which results without creation of a fibrosis tract [3]. This complication interest almost of hydatid liver. Usually right hepatic lobes invade the right lateral abdominal wall [7] same as [4]. They are especially with exoliver development. Although the cyst from left lobe invade the anterior abdominal wall [5,7]. This cyst are commonly old, the pericyst has been inflammatory reshuffle and calcifications. Such as our reported cases, many characters explain the factors of fistulization: Mechanic and inflammatory ones. Mechanic reasons are the continued expansion of the cyst causing pressure erosion and adhesion to the adjacent structure [8]. In the same time inflammatory factors exist with increasing intracystic pressure, the cyst rupture and inflammation lead to necrosis consequently causing fistulization. Occult trauma could be one of the causes for rupture of hydatid cyst leading to fistula formation [9,10]. Some subcutaneous hydatid cysts are more likely to be a primary invasion of hepatic *Echinococcus* is or contamination during previous surgery rather than hematogenous metastasis [4].

There is a classification of rupture hepatic hydatid cyst posted by Lewall and MCorKELL [11]. They have separated rupture hydatid liver cyst into 3 categories: Contained, communicating and direct. Contained rupture occurs when only the endocyst ruptures and the cyst contents remain confined to the intact pericyst. Communicating rupture consists of a rupture of the endocyst with the escape of cyst contents into bronchioles or biliary radicals that are incorporated into the pericyst. Direct rupture is when both the endocyst and pericyst tear, causing a leakage of contents into the pleural or peritoneal cavities or other adjacent tissues [12].

The operating procedure seems extremely necessary associated to medical treatment in the way to remove the cyst [13]. Surgical gesture includes resection of the primary cyst with excision of the fistula tract and disease skin. Benzimidazolecarbamates (mebendazole and albendazole) are antihelmintic drugs that kill the parasite by impairing its glucose uptake. Albendazole is the drug of choice because of its better absorption and better clinical results in comparison with mebendazole. Continuous daily treatment for a 3 months period has better results [8].

Concluding, association of cutaneous involvement and pleural one in liver hydatid cyst is a rare presentation, which has not been reported just in 3 cases before ours, in our knowledge. The surgical treatment is the most successful procedure of the definitive treatment of this disease.

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