

Case Report
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Disseminated Hydatidosis: A Case Report

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ABSTRACT

Introduction: Disseminated abdominal hydatidosis is a rare presentation of hydatid disease. It represents 5–16% of all localizations. Peritoneal implantation of daughter cysts usually occurs as a consequence of traumatic or surgical liver hydatid cyst rupture. We report a case of disseminated hydatidosis in the department of visceral surgery of Mongi Slim hospital in Marsa.

Observation: A 60-year-old man from Kasserine (hyper-endemic area of hydatidosis), who had a hemostasis splenectomy in 1997, with a 9-month history of abdominal distension and dyspnoea on exertion.

On examination he had sub-jaundice with an asymmetrical distended abdomen. Thoraco-abdomino-pelvic CT scan revealed multiple echinococcal cysts in the liver, peritoneal cavity, retroperitoneum and right lung, at various stages of development. He was operated, with a selective left intubation.

The surgical procedure consisted on a resection of protruding domes, enucleation of transverse mesocolon cysts, retrograde cholecystectomy, trans cystic drain and residual cavity drainage.

It is recommended to perform excision (cystectomy, peri-cystectomy) of cysts that are easily and safely accessible, and partial cystectomy (resection of the protruding dome) with evacuation of the parasite for deep cysts in close contact with the vessels, mesos and viscera, when local and general conditions do not allow it.

The prognosis of the disease depends on the extent of peritoneal dissemination, the existence of visceral localizations and their severity, the general condition of the patient, the completeness of the cure and the experience of the surgeon.

Conclusion: Dissiminated hydatidosis is a rare but serious presentation of hydatid disease. Surgery is the mainstay of treatment of peritoneal hydatidosis, based on radical or conservative methods.

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Introduction

Hydatidosis is a cosmopolitan parasitic disease which presents a real public health problem especially in endemic countries of which Tunisia is part.

Disseminated lung, peritoneal and retroperitoneal hydatidosis is a rare presentation of hydatid disease, and is generally seen secondary to spontaneous rupture or iatrogenic spillage of hydatid cysts at more common sites such as liver and lungs [1]. We report a case of disseminated hydatidosis in the department of visceral surgery of Mongi Slim hospital in Marsa.

Case Presentation

A 60-year-old man from Kasserine (hyper-endemic area of hydatidosis), who had a hemostasis splenectomy in 1997, with a 9-month history of abdominal distension and dyspnoea on exertion. On examination he had sub-jaundice with an asymmetrical distended abdomen (Figure 1).



Figure 1: Asymmetrical Distended Abdomen

The biological workup showed a slightly disturbed liver function test and a strongly positive hydatid serology.

Thoraco-abdomino-pelvic CT scan in axial and sagittal section showed: (Figure 2)

- Two lobulated cystic lesions of the right upper lobe (★)
- Multiple cysts of the left liver, some of which are multivesicular, exerting a mass effect on the inferior vena cava, the right portal branch and the right and medial suprahepatic veins

- Multiple cysts of the right liver
- Dilatation of the intrahepatic bile ducts upstream of a compressive cyst of the hilum (■)
- Voluminous left renal cyst of 20 cm of large axis which represses the tail of the pancreas and the splenic vein (→)
- Large intraperitoneal subhepatic cyst of 26 cm long axis (→)
- Pelvic multi-vesicular cysts

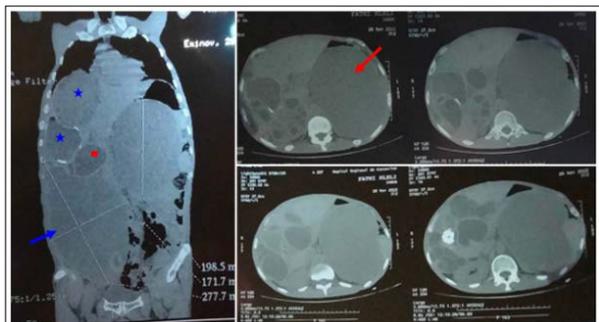


Figure 2: Abdominal CT scan showing multiple hydatid cysts at various stages of development, in the right lung, the liver and within the peritoneal cavity
CT = computed tomography.

The case was presented in multidisciplinary consultation staff, the decision was to operate on the liver and intraperitoneal hydatid cysts first ; while using a selective intubation. He was operated, with a selective left intubation.

Intraoperatively : we found (Figure 3)

- Three hydatid cysts of the right liver with exophytic development, the most voluminous of which was in close contact with the mesocolon (A)
- Two cysts of the left liver
- Retroperitoneal cyst (B), occupying the splenectomy space and pushing back the tail of the pancreas (C)
- Centimetric cysts of the transverse mesocolon
- Pelvic cyst of 5 cm long axis, adhering to the bladder and the cecum

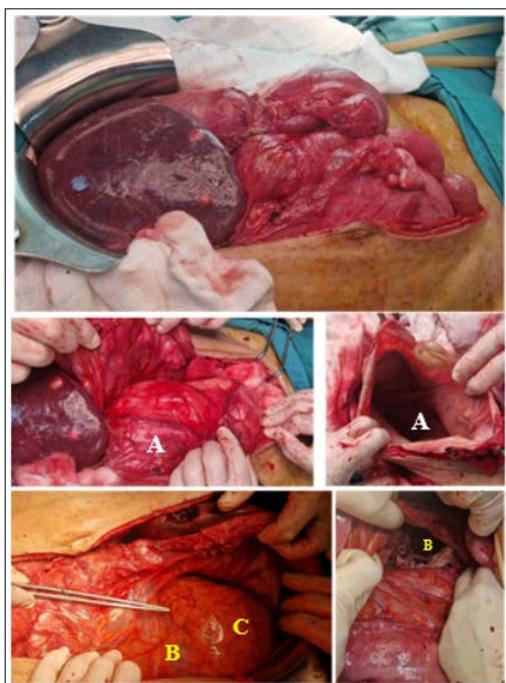


Figure 3: Intraoperative view Showing

The surgical procedure consisted on a resection of protruding domes, enucleation of transverse mesocolon cysts, retrograde cholecystectomy, trans cystic drain and residual cavity drainage. Patient transferred intubated to the intensive care unit.

The evolution was marked by hydatid vomiting and the development of an acute respiratory distress syndrome. He died on the 15th postoperative day.

Discussion

Echinococcal infestation in humans occurs via accidental ingestion of eggs passed in canine (definitive host) faeces incidentally ingested by cattle (intermediate host). The eggs hatch into larval forms that appear as simple cysts [1]. Disseminated abdominal hydatidosis is a rare presentation of hydatid disease. It represents 5–16% of all localizations combined according to European series [2]. Peritoneal implantation of daughter cysts usually occurs as a consequence of traumatic or surgical liver hydatid cyst rupture (secondary form). Primary dissemination is rare and accounts for 2% of intra-abdominal hydatidosis [3].

Diagnosis is Aided by Ultrasound or CT

Ultrasound is considered to be the first-line examination for the diagnosis and detection of hydatid disease in its abdominal locations, with a reliability of more than 90% [4]. Abdominal CT (in spontaneous contrast and/or with intravenous iodine injection) allows an easy and precise diagnosis than ultrasound of the hydatid cyst, particularly in its peritoneal location [4,5]. CT allows to map the different locations, which is extremely useful for the surgeon. Surgery is indicated for localised, complicated, superficial or multiseptated cysts while PAIR (Puncture, Aspiration, Injection, Re-aspiration) is useful in simple cysts, poor surgical candidates or pregnancy. Both forms, however, require peri-interventional albendazole therapy [6]. It is recommended to perform excision (cystectomy, peri-cystectomy) of cysts that are easily and safely accessible, and partial cystectomy (resection of the protruding dome) with evacuation of the parasite for deep cysts in close contact with the vessels, mesos and viscera when local and general conditions do not allow it P [7]. The prognosis of the disease depends on the extent of peritoneal dissemination, the existence of visceral localizations and their severity, the general condition of the patient, the completeness of the cure and the experience of the surgeon. Long term monitoring is essentially aimed at detecting recurrences requiring reoperations [8].

Conclusion

Dissiminated hydatidosis is a rare but serious presentation of hydatid disease. The positive diagnosis is based on epidemiological, clinical, and paraclinical arguments represented essentially by CT scan. Surgery is the mainstay of treatment of peritoneal hydatidosis, based on radical or conservative methods which must act on both the peritoneal hydatidosis and the primary visceral hydatid cyst [9].

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