

A propos of a case: Abdominal compartment syndrome caused by massive hydatid disease

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Dear Editor,

For hydatid disease surgery remains the treatment of choice. The surgical technique and approach will depend on location, cyst status and size, and surgical team experience (1). The goal of this letter is to report the clinical case of a patient with a compartment syndrome, suffering from all its pathophysiological consequences, caused by hepatic and abdominal hydatid disease, as well as its two-stage resolution.

We report the case of a 31-year-old male Moroccan patient from a rural area, with no outstanding medical history, who presented at the emergency room for fever, breathlessness and abdominal pain of one-week duration. Laboratory tests reveal elevated acute-phase reagents, hypoxemia and hypercapnia. Abdominal sonography and a chest-abdominal CT scan revealed an elevated diaphragm, bilateral atelectasis, three large hydatid cysts in the liver –the largest one in segment VI– and massive peritoneal spread (Fig. 1). He was admitted to surgery and developed overall health impairment, somnolence, respiratory distress, oliguria, generalized edema, and evidence of congestive heart failure. An emergency decompressive mini-laparotomy

was performed, which removed 13 liters of ascetic fluid and hydatids. Following a favorable recovery a surgical procedure was scheduled after 15 days. It included cholecystectomy, bile tree exam, closed cystectomy for a large mesenteric cyst, open pericystectomy for cysts in segments II-III and VI, and omentectomy with removal of multiple peritoneal cysts. The patient had a satisfactory outcome and was discharged on albendazole.

The relevant literature on this topic is sparse and no therapeutic algorithm is available, hence the modality of choice is selected on a case by case basis (4). Regarding surgery, patients were usually operated upon using non-radical techniques, which have drawbacks such as longer hospital stays, higher relapse risk, and chronic biliary fistulas. It is because of this that total cystectomy/pericystectomy is increasingly considered to be the most appropriate closed technique (5). For massive hepatic hydatid disease (6) radical surgery is a must, and it usually involves significant liver resections because of scarce healthy liver tissue remnants.

Fewer than 10 cases requiring emergency surgery to solve complications have been reported. No study has ever reported a patient with massive hydatid disease requiring two-stage surgery: an initial urgent procedure to reduce abdominal pressure and a second procedure by a team with expertise in hepatobiliary surgery for a definitive management.

Few institutions use a laparoscopic approach for hydatid disease as it is a demanding technique, particularly in poorly accessible sites and given the risk of hydatid spread after accidental cyst rupture. Most papers (7,8) claim that such an approach should only be used in centers specializing in advanced laparoscopy and in highly experienced hepatobiliary units, after proper patient selection, in order to conclude that laparoscopy is safe and comparable to open surgery in terms of radicalness criteria.

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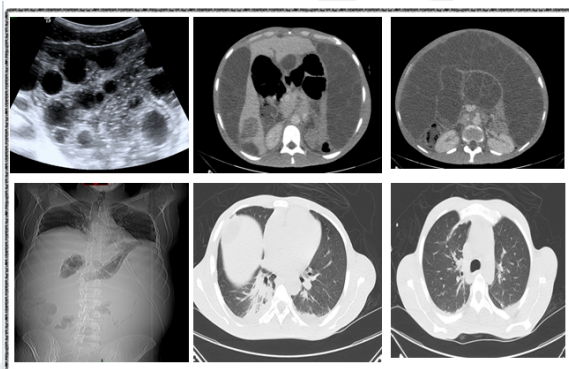


Fig. 1. A. Multiple vesicles seen under ultrasonographic guidance. B and C. CT scan: Widespread hepatic and peritoneal hydatid disease covering the whole abdomen. D. Elevated diaphragm. E. Liver protrusion into the thoracic cavity. F. Reduction of both pulmonary fields.