

## Hydatid Cyst of the Gallbladder Ruptured in the Bile Duct; About A Rare Observation

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### Abstract

### Case Report

Hydatid disease is endemic in Morocco specially in the liver but we report a specific localisation of a hydatid cyst in a young 34-year-old woman who consulted for abdominal pain and mucocutaneous jaundice whose imaging showed that the liver was the site of a heterogeneous image in the segment IV suggestive of a type IV hydatid cyst disrupted in a distended gallbladder, containing corrugated membranes and a biliary dilatation with debris material within the common bile duct. The liver test showed a cholestasis syndrome and a cytolysis syndrome, so we performed a perikystectomy with cholecystectomy after medical preparation. Postoperative recovery was uneventful.

**Keywords:** Hydatid cyst, gallbladder, bile duct, cholecystectomy, perikystectomy.

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## INTRODUCTION

Hydatid disease is endemic in Morocco [1].

The liver remains the most frequent location but it can have specific locations as in our case.

## CASE PRESENTATION

A young 34-year-old woman from the countryside with no notable history consulted urgently for acute abdominal pain and mucocutaneous jaundice. The patient reported localized pain in the right hypochondrium 40 days before admission, with nausea. This pain has been complicated for a week by the sudden onset of generalized mucocutaneous jaundice, accompanied by dark urine and discolored stools. The clinical examination noted a sensitivity of the right hypochondrium, without a palpable mass. The temperature was 38°. An abdominal ultrasound showed a distended gallbladder with a thickened wall, containing corrugated membranes. The common bile duct was dilated to 9mm without endoluminal material and the liver was normal. The liver test showed a cholestasis syndrome (direct bilirubin at 58 mg / l, alkaline phosphatase at 343 IU / l) and a cytolysis syndrome (ASAT at 507 IU / l and ALAT at 1044 IU / l). An abdominal CT scan showed the same aspect of the distended gallbladder, as well as a biliary dilatation to 9 mm with debris material within the common bile duct. The liver was the site of a heterogeneous image in

the segment IV suggestive of a type IV hydatid cyst disrupted in the gallbladder.



Fig-1: Hydatid cyst of the gallbladder



Fig-2: Hydatid material in the gallbladder

After medical preparation, the patient was operated on by right costal laparotomy. Surgical exploration found a hydatid cyst localized to the gallbladder, whose wall is thickened. The cystic duct was dilated as well as the common bile duct. At its opening, it contained hydatid material. A large cholecystectomy with gall bladder and hydatid cyst was performed; we washed the bile duct and placed an intra choledochal kehr drain. The follow-up was simple and the patient was out on the 4th day post-op. Kehr drain cholangiography was performed on the 18th day and showed a good duodenal passage without an individualized barrier, which made it possible to remove the drain. The follow-up at 3 months is without particularities.

## DISCUSSION

Hydatid disease is a common pathology in clinical practice in Mediterranean and Southern countries [2]. It is caused by *Echinococcus granulosus*. The infection begins with the ingestion of tapeworm eggs, which migrate through the flow to the liver, which is the organ most affected by this parasite. From there, they migrate to the lung through the inferior vena cava. Once they are in the general circulation, they can locate themselves in any organ [3].

The presence of hydatid cysts in rather specific locations has led to the hypothesis of migration of eggs by routes other than the bloodstream: lymphatic system, bile ducts, peritoneal migration...

Clinical signs are often non-specific, such as abdominal pain, nausea and dyspepsia. Jaundice and anaphylactic reactions have never been reported in the literature.

Imaging plays a key role in diagnostic care. Because of the anatomical proximity between the gall bladder and the liver, the exact location of the hydatid cyst is not always easy to establish preoperatively. Often, the vesicular seat of the cyst is established only intraoperatively as with our patient. Initial ultrasound and computed tomography describes the cystic lesion as a hydatid cyst of the liver with participation of the gallbladder [4]. Hepatic hydatidosis remains asymptomatic for a long time (cystic growth), whereas for the gallbladder, biliary symptoms begin earlier, and diagnostic imaging may show small cysts deforming the gall bladder [5].

Surgery is the ideal treatment for hydatid disease. The objective is the eradication of the parasite without dissemination of the contents of the cyst [6]. In cases of hydatidosis of the liver, complete perikystectomy is not always possible, and therefore conservative treatment is the most common approach [7]. We performed a perikystectomy with cholecystectomy. Postoperative recovery was uneventful.

## CONCLUSION

The hydatid cyst can take on different forms and have particular clinical and radiological presentations. This is the case of this observation

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