



Intraperitoneal Rupture of Hepatic Hydatid Cysts

Chong Yang¹ · Hongji Yang¹ · Shaoping Deng¹ · Yu Zhang¹

Received: 17 March 2018 / Accepted: 5 April 2018 / Published online: 20 April 2018
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Keywords Hepatic hydatid disease · Hydatid cysts · Rupture

A 46-year-old man from pastoral area presented to the surgeon's office complaining of abdominal pain and new onset of jaundice for 2 days. Clinical examinations revealed jaundice, abdominal tenderness without tension and rebound pain. Biochemistry test indicated TBIL, 156 $\mu\text{mol/L}$; ALT, 107 U/L; and AST, 114 U/L. An emergency computed tomography (CT) scan demonstrated multiple cystic lesion in the liver/spleen/omentum majus (Fig. 1a/c), and without brain/pulmonary invasion. Combined with patient's native place and medical history, a primary diagnosis of hepatic hydatid cysts rupture was made. After anti-infective and liver protect treatment for 2 weeks and the hepatic function improved, albendazole (15 mg/kg/day) was administered for 10 months. When secondary hospitalized, the CT scan revealed reduced abdominal multiple cystic lesion (Fig. 1b/d). A laparoscopic exploration detected multiple cyst locations in the liver/spleen/omentum majus, and left liver lobe, spleen, and omentum majus re-

section was successfully implemented (Fig. 2). The diagnosis of intraperitoneal rupture of hepatic hydatid cysts with implantation and metastasis was confirmed (Fig. 3). The patients were discharged uneventfully 25 days after operation. Albendazole (15 mg/kg/day) was administered and planned to continue for 1 year.

Hydatid cysts mostly occur in the liver. Once the cyst ruptured, the hydatid liquid will cause serious peritonitis and intraperitoneal hydatid cysts implant and metastasis. W.N. von Sinner indicated the "snake sign" and "spin sign" are particularly for hydatid cysts ruptured diagnosis.^{1,2} An emergent laparotomy is necessary when hydatid cysts ruptured immediately.³ However, some patients may be admitted after cyst ruptured for some days. Serious edema of the intestine and omentum majus may cause surgery failure in this phase. Then, preoperative albendazole administration may create opportunities for future radical surgical resection.

All authors have directly participated in the manuscript. All authors have read and approved the final version submitted. As per the guidelines of the International Committee of Medical Journal Editors (ICMJE), all authors contributed to the final version submitted.

✉ Yu Zhang
68532815@qq.com

¹ Organ Transplantation Center, Sichuan Academy of Medical Sciences & Sichuan Provincial People's Hospital, Chengdu, Sichuan Province, People's Republic of China

Fig. 1 The abdominal CT scan demonstrated multiple cystic lesion in the left liver lobe, spleen, and omentum majus (**a, c**). The abdominal CT scan demonstrated reduced abdominal multiple cystic lesion after 10 months albendazole (15 mg/kg/day) treatment (**b, d**)

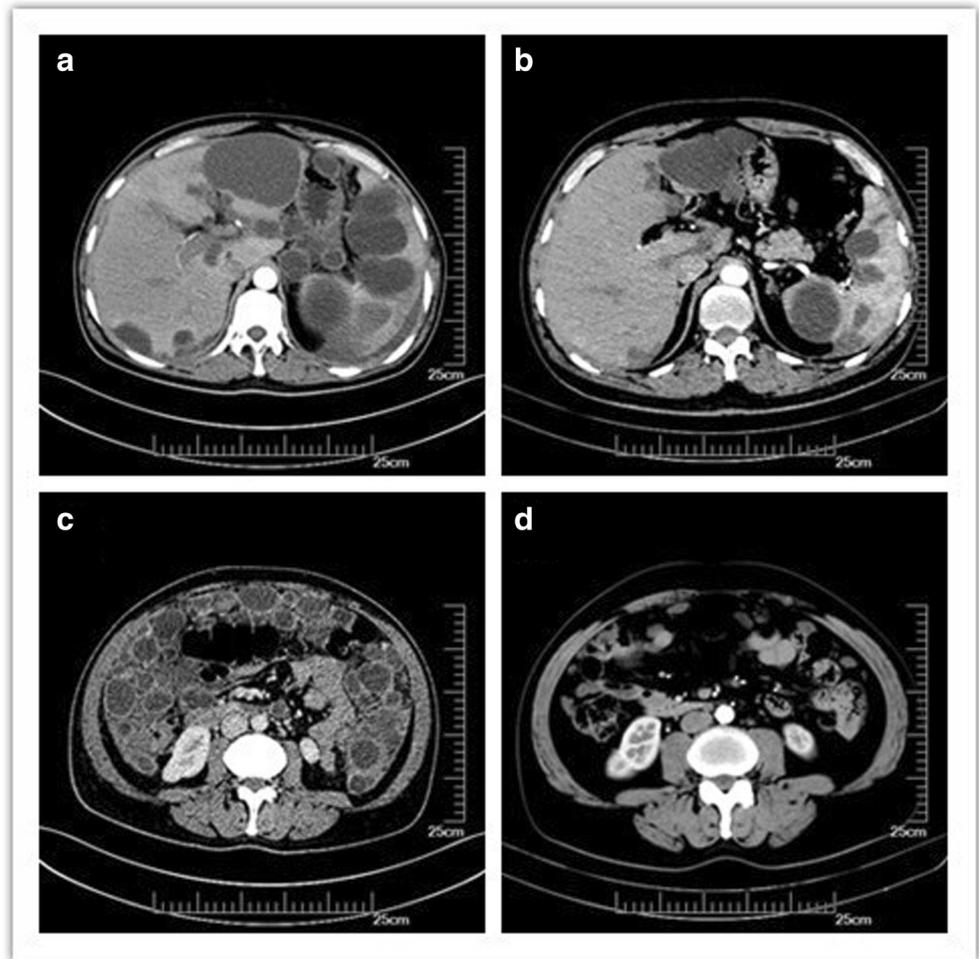


Fig. 2 The left liver lobe cyst location (**a**). The omentum majus cyst location (**b**)

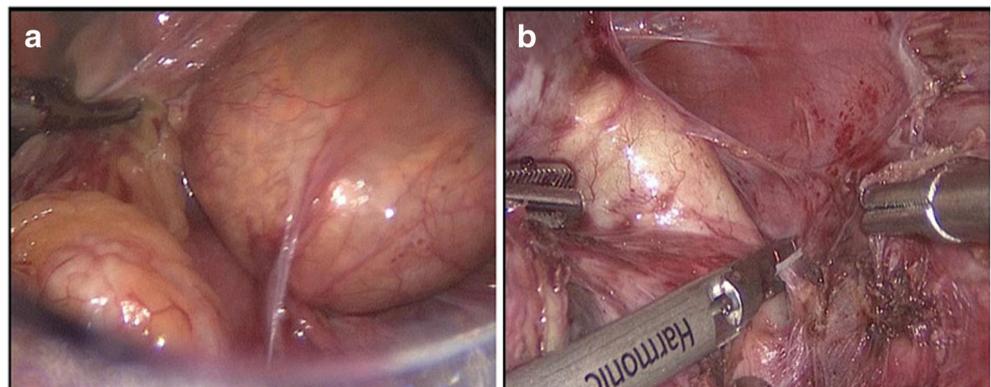




Fig. 3 The surgical specimen: spleen (upper left), left liver lobe (upper right), and omentum majus (below)

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