

**PICTURES IN DIGESTIVE PATHOLOGY**

## Giant hydatid cyst involving the right hepatic lobe

J. M. Suárez Grau, M. A. Gómez Bravo, J. M. Álamo Martínez, C. Rubio Cháves, L. M. Marín Gómez, G. Suárez Artacho, C. Bernal Bellido and L. Barrera Pulido

*Service of Surgery. University Hospital Virgen del Rocío. Sevilla, Spain*

### CASE REPORT

A 62-year-old woman was being followed up by the Gastroenterology Department for a single, small (smaller than 3 cm), uncomplicated liver cyst adequately treated with albendazole for 10 years. Her significant personal history only included hiatal hernia and atrophic gastritis.

Abdominal exploration revealed a large, hard, non-fluctuating, painless tumor spanning from the right hypochondrium to the epigastrium; the rest of the abdomen was soft and depressible with no pain or peritoneal signs. Across its diameter the abdominal mass was dull, and peristalsis was preserved. No deglutition changes or dysphagia were present.

The patient underwent a cholangio-abdominal CT scan and MRI scan with the following results: hepatic hydatid cyst in the right hepatic lobe, 21 cm in diameter, active, with many vesicles inside, and ruptured at various points, particularly on its inferior aspect with small adjacent cysts. Gallbladder stones. Extrinsic bile duct compression with no dilatation and no choledocholithiasis. Left adrenal cortical adenoma (Fig. 1).

The patient was admitted for surgery – total pericystectomy and resection of the right adrenal cyst (Fig. 2). The abdominal cavity was washed with diluted hydrogen peroxide. In addition to this, cholecystectomy and liver resection around cyst margins were also performed, and only a piece of the cortical cyst that was attached to the cava was left in place and fulgurated with argon plasma. The postoperative period was uneventful, including the initial 24 hours spent in the intensive care unit. The patient then fully recovered in the ward, and was discharged from hospital 1 week after the procedure. Postoperative treatment included only albendazole for a month, when a follow-up visit was scheduled. Imaging tests have been made that show no cyst recurrence. For now no medical therapy is needed and the patient remains asymptomatic.

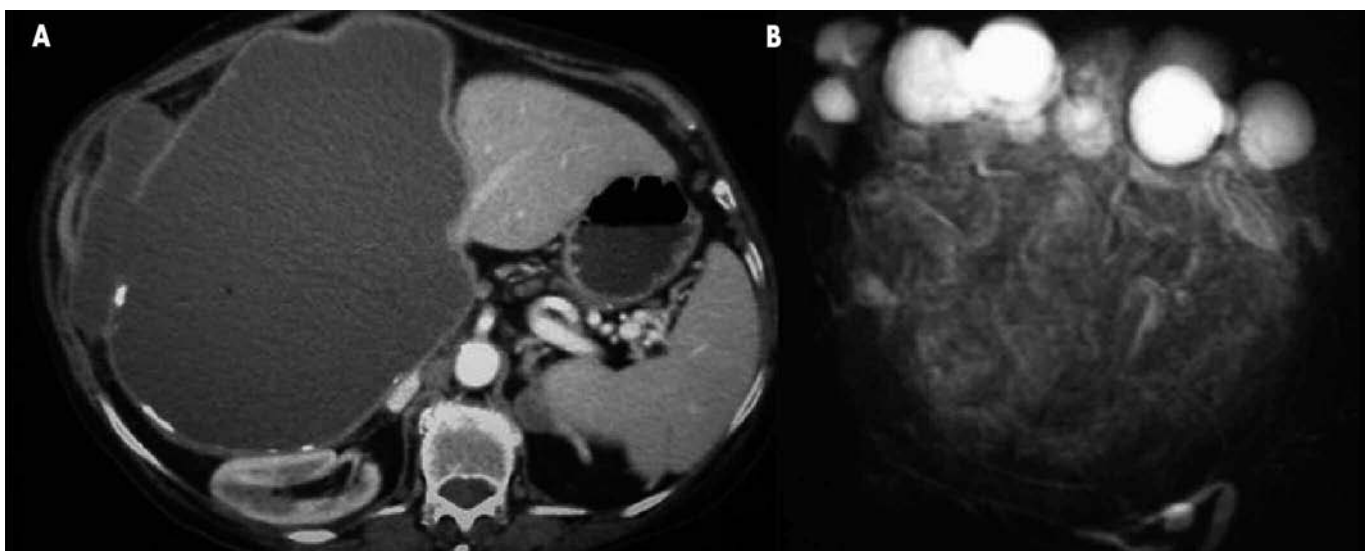


Fig. 1. A: CT scan: hydatid cyst in right hepatic lobe, occupying the whole lobe, and rejects the left hepatic lobe. B: Colangio-NMR: shown with the hydatid cyst content (vesicles) inside.

A: TAC abdominal: quiste hidatídico en lóbulo hepático derecho, que alcanza la totalidad del mismo y rechaza al lóbulo hepático izquierdo; B: Colangio-RMN: se muestra el quiste hidatídico con contenido activo (vesículas) en su interior.

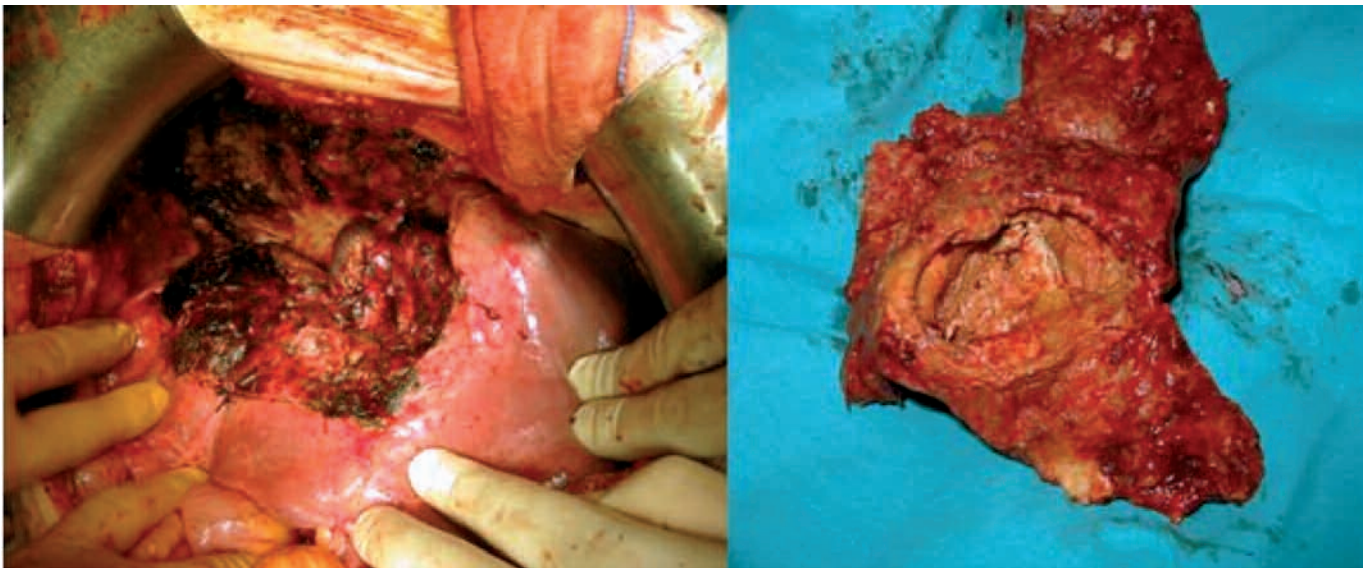


Fig. 2. Surgical procedure: pericystectomy complete, with total resection of the right liver lobe and affected margins of the left lobe.  
*Intervención quirúrgica: quisto-periquistectomía completa, con resección total del lóbulo hepático derecho y márgenes afectados del izquierdo.*

## DISCUSSION

Complicated hydatid cysts are rare; primary infection is usually asymptomatic and can last several years, as was the case with our patient. The latency period to initial symptoms may take up several years. Manifestations depend on size and location. Liver involvement is often symptomatic, and the right lobe is involved in 60-85% of cases (1,2). Major symptoms usually develop when the cyst diameter reaches about 10 centimeters. Larger cysts may present with hepatomegaly, with or without pain in the right hypochondrium, nausea and vomiting. Twenty percent of patients with pulmonary cysts also have liver cysts. Cysts located in the liver periphery or surface usually include the diaphragm and other intrathoracic structures. Diaphragmatic dissection and suturing is a correct technique. Rupture into the pleural space or bronchial tree is rare (2,3).

Surgical indications for hydatid cysts include (4):

- Active cyst.
- Complicated cysts (infection, compression, obstruction).
- Cysts located near vital organs (CNS, spinal cord, heart) or bones.
- Huge cysts at risk of rupture.

Surgical resection should include the whole cyst (cyst-pericystectomy) and also any fistulous tracts present or any other invasion of neighboring organs in a single surgical procedure; surgery should end with a proper cleaning of the surgical field (hydrogen peroxide or hypertonic saline) to prevent potential intraperitoneal spread (5).

## REFERENCES

1. Kammerer WS, Schantz PM. Echinococcal disease. *Infect Dis Clin North Am* 1993; 7: 605-18.
2. Atli M, Kama NA, Yuksek YN, et al. Intrahepatic rupture of a hepatic hydatid cyst. *Arch Surg* 2001; 136: 1249-55.
3. Kosal N, Muftuoglu T, Gunerhan Y, Uzun MA, Kurt R. Management of intrahepatic ruptured hydatid disease of the liver. *Gastroenterology* 2001; 48: 1094-6.
4. Chautems R, Buhler LH, Gold B, Giostra E, Poletti P, Chilcott M, et al. Surgical management and long-term outcome of complicated liver hydatid cysts caused by *Echinococcus granulosus*. *Surgery* March 2005; 137: 312-6.
5. Anadol D, Özçelik U, Kiper N, Göçmen A. Treatment of hydatid disease. Review article. *Paediatr Drugs* 2001; 3 (2): 123-35.