

# Unusual Cause of Obstructive Jaundice: A Case Report

Z Matar

## Citation

Z Matar. *Unusual Cause of Obstructive Jaundice: A Case Report*. The Internet Journal of Surgery. 2007 Volume 16 Number 1.

## Abstract

Jaundice due to extra-hepatic biliary obstruction may be caused by many diseases some of which are quite rare. We are reporting a young boy who presented with obstructive jaundice caused by a hydatid cyst. He was operated upon. Pre- and postoperative albendazole therapy was given and follow-up showed complete resolution of jaundice clinically and biochemically.

## INTRODUCTION

The diagnosis of obstructive jaundice remains difficult yet vital since operative decompression may relieve extra-hepatic blockage but operation can only harm patients with intra-hepatic block, parenchymal cell inflammation or necrosis. <sup>1</sup> The common conditions that cause extra-hepatic biliary obstruction and “surgical jaundice” include choledocholithiasis, benign biliary strictures, peri-ampullary cancer, cholangio-carcinoma and primary sclerosing cholangitis. <sup>2</sup> Compression of the common bile duct by a hydatid cyst leading to obstructive jaundice is seldom encountered in clinical practice.

## CASE REPORT

A 19-year-old male was referred to our hospital with jaundice, clay-colored stools and itching of one month duration. He gave history of a similar attack two years ago which resolved spontaneously. On examination he was jaundiced, underweight and malnourished. The liver was palpable 4cm below the right costal margin. Laboratory investigations revealed obstructive jaundice. Serological test for echinococcosis was positive. Ultrasonography showed a mixed echogenic, smooth-walled cystic mass in the right lobe of liver with 1-3cm cysts at the edges of the mass, marked intra-hepatic biliary radicles dilatation and moderately enlarged liver. The common bile duct (CBD) could not be seen (Figure 1).

## Figure 1

Figure 1: Ultrasound of the abdomen showing a hydatid cyst



CT showed a 9.7x7.8cm smooth outlined cyst in the right lobe of the liver and 1-1.5cm cysts bordering the big cyst, pressing on the portal vein. Intra-hepatic biliary radicles were grossly dilated, the common hepatic duct was compressed and the common bile duct (CBD) collapsed (Figure 2).

**Figure 2**

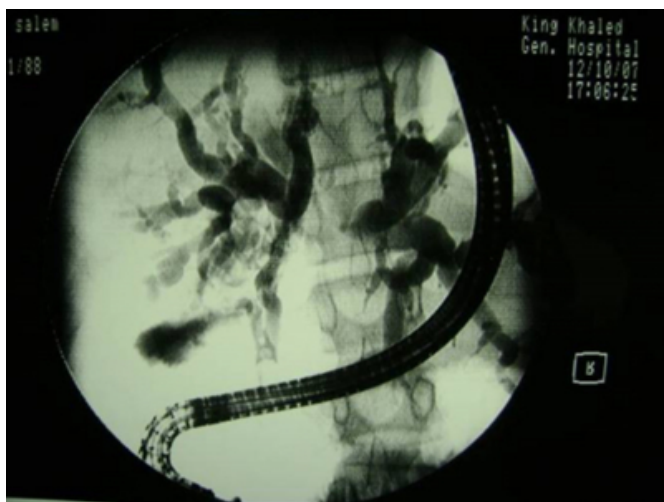
Figure 2: CT scan showing the large hydatid cyst



These findings were confirmed by ERCP (Figure 3):

**Figure 3**

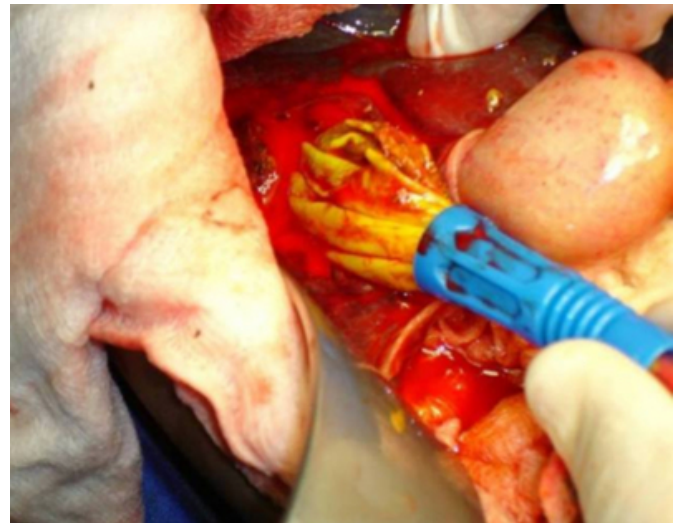
Figure 3: ERCP showing dilated biliary tree



During operation, incision and operative field were carefully isolated with abdominal packs soaked in hypertonic saline. The contents of the hydatid cyst were aspirated through its most prominent part; the cavity was filled with 20% saline for 10 minutes and, after another aspiration, opened through a vertical incision. The remaining contents of the cyst were evacuated, the cavity was inspected and one biliary communication was closed (Figures 4a, 4b).

**Figure 4**

Figure 4a: Removing the cyst



**Figure 5**

Figure 4b: Cyst Removed



The area was drained and the abdomen closed in layers. The postoperative period was uneventful, and the patient was discharged on the 8<sup>th</sup> postoperative day with improving liver functions. Treatment with albendazole was given before operation and continued post-operatively.

## DISCUSSION

“No one living is infallible in the differential diagnosis of obstructive jaundice” (Moynihan).<sup>3</sup> In all cases of surgical jaundice, it is mandatory to determine pre-operatively the exact nature and the site of obstruction because an ill-chosen therapeutic approach can be dangerous.<sup>4</sup> This is especially true in hydatid disease where adequate precautions have to be planned before and taken during surgery to avoid spillage of the cyst contents which may lead to severe complications.

Hydatid disease is a parasitic infestation caused by *Echinococcus granulosus*.<sup>5,6,7</sup> It is an endemic problem in Turkey as well as in sheep-rearing regions of the world.<sup>5,6,7</sup> Of all cysts in the liver, 50%-70% are caused by *Echinococcus granulosus*. Hydatid cysts may be asymptomatic, or may cause abdominal pain, jaundice, or a visible abdominal mass.<sup>8</sup> Patients seek medical care when their cysts have reached large size destroying a large amount of liver parenchyma.<sup>9</sup> As there is no reliable pharmacological intervention, the recommended and most effective treatment of hepatic hydatid cysts is surgery, the primary goal of which is resection of the cyst<sup>10</sup> or de-roofing and evacuation of the cyst without spilling its contents.

Our patient was treated with albendazole 10mg/kg preoperatively and the treatment was continued for 2 months with monitoring of liver functions and blood count. Postoperative follow-up was uneventful.

### SUMMARY

An unusual case of obstructive jaundice due to a hydatid cyst is presented. Surgical removal of the cyst resulted in complete resolution of jaundice. Treatment with oral albendazole was given pre-operatively and continued for two months after surgery.

### CORRESPONDENCE TO

Dr. Zafer S. Matar King Khalid Hospital PB No.1120,  
Najran, Saudi Arabia Telephone: +96675223676 E-mail:  
zafer\_S\_m@hotmail.com

### References

1. Clarke JS et al. Diagnosis of Obstructive Jaundice. UCLA Interdepartmental Conference. The Western Journal of Medicine 1970; 112: 44-58
2. Steven A, Ahrendt MD, Henry A, Pitt MD. Biliary Tract: Obstructive Jaundice. Sabiston Textbook of Surgery; WB Saunders Company 2001, Chapter 50; pp. 1080-1082
3. Moynihan B. Abdominal Operations. Vol. II (4th ed. revised), Philadelphia WB Saunders Company 1926, p. 528
4. Nadkarni KM, Jahagirdar RR, Kagzi RS, Pinto AC and Bhalerao RA. Surgical Obstructive Jaundice. J Postgrad Med 1981; 27: 33
5. Eckert J, Deplazes P. Biological, epidemiological, and clinical aspects of echinococcosis, a zoonosis of increasing concern. Clin Microbiol Rev 2004; 17: 107-135
6. Erdogmus B, Yazici B, Akcan Y, Ozdere BA, Korkmaz U, Alcelik A. Latent fatality due to hydatid cyst rupture after a severe cough episode. Tohoku J Exp Med 2005; 205: 293-296
7. Sayek I, Yalin R, Sanac Y. Surgical treatment of hydatid disease of the liver. Arch Surg 1980; 115: 847-850
8. Yalin R, Aktan AO, Yegen C, Dosluoglu HH. Significance of intracystic pressure in abdominal hydatid disease. Br J Surg 1992; 79: 1182-1183
9. Sayek I, Tirnaksiz MB, Dogan R. Cystic hydatid disease: current trends in diagnosis and management. Surg Today 2004; 34: 987-996
10. Hofstetter C, Segovia E, Vara-Thorbeck R. Treatment of uncomplicated hydatid cyst of the liver by closed marsupialization and fibrin glue obliteration. World J Surg 2004; 28: 173-178

**Author Information**

**Zafer Said Matar, FACHARZT, Arab Board, FACS**

Consultant General Surgery, Laparoscopy, Endoscopy and Obesity, Department of General Surgery, King Khalid Hospital