1. **Assistant Professor surgery, Nishtar Medical University, Multan Pakistan.**

2. **Consultant general Surgeon Nishtar hospital Multan**

3. **Consultant General Surgeon Nishtar hospital Multan**

4. **Resident General Surgery Nishtar hospital Multan**

5. **Resident General Surgery Nishtar hospital Multan**

**Correspondence Address:**
Ashar Ahmad
ashar12@hotmail.com
+92 308 7728070

---

**INTRODUCTION**

Hydatid disease is rare but still endemic in many countries. It is caused by parasite name Echinococcus granulosus. Primary carriers are dogs and wolves and intermediate hosts are sheep, cattle and deer. Humans get infected by ova present in contaminated water or vegetables or uncooked meat. Hydatid cyst may develop in any part of the body. Most frequent sites are liver (55%), lungs (35%), Spleen (1.8%), kidneys (1.4%), bones (0.1%) and 1.7% in other sites. Multiple simultaneous sites are involved in 25% cases. Complications of hydatid cyst includes rupture, infection, allergy and anaphylaxis. Liver hydatid cyst can rupture in any part of the biliary tree but most common site is hepatic duct. Hydatid cyst rupture can be divided in to three categories. First is when only endocyst ruptures and contents are confined within the pericyst. Second is communication and drainage of contents in to biliary ducts. Third is when both endocyst and pericyst rupture and contents released in to pleural or peritoneal space. Helpful investigations are Ultrasound abdomen, CT Scan abdomen and Magnetic resonance cholangiography (MRCP). Endoscopic retrograde cholangiography (ERCP) is both diagnostic and therapeutic and is gold standard in the management of cystobiliary fistula in hepatic hydatid cyst disease. Rupture of hydatid cyst in to the biliary channels is difficult to diagnose and treat. If...
missed during the surgery, biliocutaneous fistula develops. We are presenting a rare but interesting case of cystobiliary fistula in hepatic hydatid cyst disease.

**Case Presentation:**
A 52 year old female presented in the OPD, department of Surgery, Nishtar Medical University/ hospital, Multan on 16-01-2021. She gave history of pain epigastrium and Rt. upper quadrant for last 3 months. She also gave history of vomiting and jaundice for 2 months. She was having high grade fever for last 05 days. Jaundice was gradual in onset and associated with dark coloured urine and clay coloured stool. There was no history of weight loss. She belonged to lower middle class family and having sheep and cow at home.

On examination, she was deeply jaundiced. Pulse= 81/Min, BP= 110/70 mm of Hg, Temp= 38.5°C and R/R = 16 / Min. Abdominal examination was normal. No viscera were palpable. Lab investigations were Hb= 14.3Gm/dl, WBC= 18000/mm³. Bilirubin= 15.2mg /dl, AST= 69 U/L, ALT= 90 U/L, ALP= 1158 U/L, INR= 2.6.

Screening test for Hepatitis B and C were negative. Ultrasound abdomen showed two liver hydatid cysts in Rt. Lobe of liver with thick internal septations (collectively measures 16.7×10 cm) communicating to intrahepatic biliary channels. CBD has 11 mm diameter. There is thick echogenic material in CBD and gallbladder. CT Scan abdomen showed 7.2×6.6 cm cyst along liver segment 5, 7 and 6. Another cyst of 5.6×7.7 cm along segment 7 with internal septations. Exploratory laparotomy was performed and de roofing of the hydatid cysts was done with repair of cystobiliary fistula. All the daughter cysts were removed and cavity was packed with omentum. Cholecystectomy was performed. CBD was explored and daughter cysts were identified. All the cyst material was removed and T-Tube was placed. Postoperative course was uneventful. Patient recovered well and discharged home on 3rd postoperative day in good health and condition. She was discharged on oral Albendazole. Patient was followed in OPD after 7 days and 14 days. She was in good condition of health.

**Fig-1: USG: Showing hydatid cyst with internal Septations. CT Scan: Showing 2 hydatid Cyst**

**Discussion:**
Potential sites of hydatid cyst rupture are peritoneum, bile ducts, pleural space, thorax and viscera such as stomach or duodenum. Marcello Di Martino from Madrid, Spain mentioned a bronchobiliary fistula due to giant hydatid cyst in his study. Intrabiliary rupture can present in two different ways. Occult communication (10-37%) and frank intrabiliary rupture (3-
communication has high frequency of postoperative complications like biliocutaneous fistula, Biloma and bile peritonitis (4-28%). External biliary fistulae following hydatid cyst surgery tend to close spontaneously. In a review of 304 cases by Balik AA\textsuperscript{11}, all the 10 external biliary fistula closed spontaneously over a period of 2-4 months. In some cases these fistulae persist and again ERCP plays a key role in their management. ERCP, sphincterotomy and either biliary stenting or nasobiliary drainage reduces the high intrabiliary pressure and promote early closure of these fistulae\textsuperscript{12}.

References:


6. Marcello Di Martino, Claudio Laganá, Jesús Delgado Valdueza and Elena


