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Case report

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Management of a Todani Type 1b Choledochal Cyst: Case report

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Abstract

This case report describes the management of a Todani Type 1b choledochal cyst in a 26-year-old woman who presented with chronic epigastric dyspepsia and acute epigastric pain. MRI revealed a cystic dilatation of the distal common bile duct. The patient underwent successful surgical excision of the cyst, cystic duct, and gallbladder, followed by reconstruction with a Roux-en-Y hepaticojejunostomy. The postoperative course was uneventful, with discharge on the sixth day. This case highlights the importance of timely diagnosis and surgical intervention to prevent complications such as biliary cirrhosis and malignancy.

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Introduction

Choledochal cysts are congenital biliary tract anomalies characterized by cystic dilatation, posing risks such as cholangitis, pancreatitis, and an increased likelihood of biliary malignancies[1,2]. Surgical management, often involving cyst excision and biliary reconstruction, is essential to mitigate these risks[3]. This report discusses the presentation, diagnosis, and surgical management of a Todani Type 1b choledochal cyst in a young woman, highlighting the importance of timely intervention.

Case Presentation

A 26-year-old woman presented with a history of chronic epigastric dyspepsia and acute epigastric pain. She had no significant medical history. On physical examination, she exhibited acute epigastric tenderness, but her abdominal wall was neither distended nor contracted. Vital signs were stable, with a mild fever of 37.7°C.

Laboratory investigations were unremarkable, with normal white blood cell count and liver enzymes., total bilirubin was 4.5 mg/L . An MRI revealed a cystic dilatation of the distal common bile duct measuring 25 x 40 mm, with associated cystic duct dilatation, but no evidence of cholecystitis or lithiasis. The cyst was classified as Todani Type 1b.

Given the diagnosis and the potential for severe complications, surgical intervention was recommended. The patient underwent an open right subcostal incision, revealing significant dilatation of the common bile duct. The surgery involved complete excision of the choledochal cyst, cystic duct, and gallbladder (figure 1). Reconstruction was achieved via a Roux-en-Y hepaticojejunostomy, constructed with interrupted 5-0 sutures (figure 2). An

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Figure 1: operative view, dissected choledochal cyst.

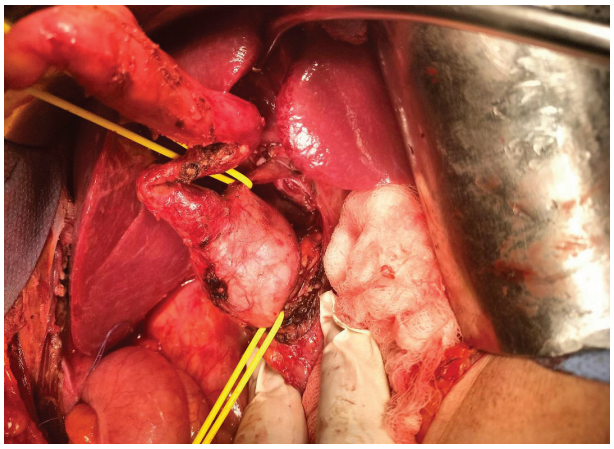
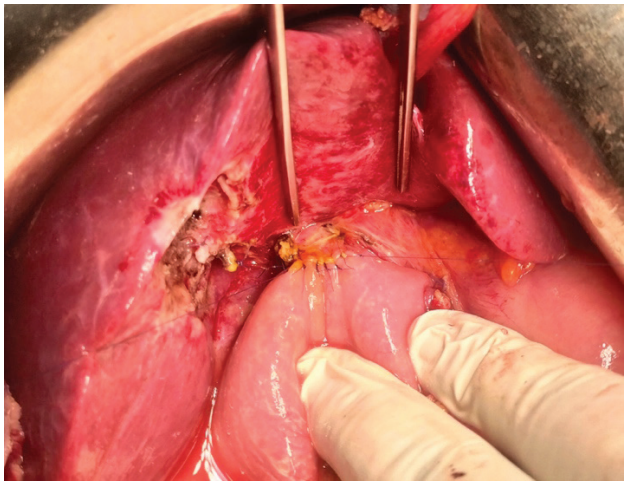


Figure 2: Final aspect after resection of the choledochal cyst and formation of a Roux-en-Y hepaticojejunostomy using interrupted absorbable suture.



abdominal drain was placed at the end of the procedure. The patient's postoperative course was uneventful. The abdominal drain was removed on the third postoperative day after negative bilirubin levels in the drain fluid. She was discharged on the sixth postoperative day without complications.

Discussion

Choledochal cysts, particularly Todani Type 1b, require prompt surgical intervention to prevent complications such as cholangitis, pancreatitis, biliary cirrhosis and malignancy[1-3]. The Todani classification, based on cyst location and morphology, guides surgical management. Type 1 cysts, characterized by extrahepatic bile duct dilatation, are typically treated with complete cyst excision and biliary reconstruction, as demonstrated in this case. The successful outcome in this patient underscores the effectiveness of early surgical intervention and meticulous surgical technique[4,5]. This case highlights the critical role of timely diagnosis and appropriate surgical management in patients with choledochal cysts. Complete cyst excision with Roux-en-Y hepaticojejunostomy remains the standard treatment for preventing long-term complications in patients with Todani Type 1b choledochal cysts.

Acknowledgments

Conflict of interest: No conflict of interest.

Consent: Written consent was obtained from the patient for the publication of this case report and is held by the authors.

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