Choledochal cyst: our experience in a single case by laparoscopic approach

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Introduction

Choledochal cysts are disproportionate dilatations of the biliary system for the presence of a congenital malformation, the persistence of the common biliary pancreatic channel. Complete excision of the cyst is the best treatment strategy to avoid long-term complications especially malignant transformation, recurrent cholangitis and gallstones. We present a clinical case treated at our center with minimally invasive surgery.

Case Report

A female patient was admitted to our center at the age of 3 years, with right hypocondrial pain, followed by jaundice, vomiting and recurrent fever. No abdominal mass present. Abdominal ultrasound was performed and also Magnetic resonance cholangiopancreatography. According to the Todani classification modified by Alonso-Lej classification we identified a type I with three gallonstones. She underwent laparoscopic cyst excision and hepatico-jejunostomy Roux-en-Y with perianastomotic drainage positioned. No early and late postoperative complications after 1 year of follow-up.

Discussion and Conclusions

Choledochal cysts can present at different ages with variable symptoms. Common presentations include abdominal pain, jaundice, and right upper quadrant mass and are most common seen in pediatric patients. Associated congenital anomalies of biliary tract may be present. Most cases of choledochal cyst disease have type I and IV-A cysts. If left untreated, choledochal cysts have an increased risk of malignant transformation. Early surgical excision and restoration of biliary tract continuity is mandatory, whatever the symptom severity to avoid long term complications whenever possible. Currently the gold standard treatment is the mini invasive surgery, in fact the advantages of this technique is the intraoperative visualization of deeper structures, decreased postoperative pain, shorter hospital stay, improved cosmetic result and decreased postoperative ileus. However, these cases remain reserved for highly specialized surgeons with a thorough understanding of hepatobiliary anatomy and minimally invasive techniques. Finally, limited case series of robotic pediatric choledochal cysts resection and reconstruction have been reported with acceptable outcomes, although more studies are needed before widespread acceptance and implementation of this technique in pediatric age.