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LETTER TO EDITOR

Cholelithiasis and choledocholithiasis in a 78-day-old infant suffering from jaundice, and treated through laparoscopic transcystic common bile duct exploration (LTCBDE)

KEYWORDS
Cholelithiasis;
Choledocholithiasis;
LTCBDE;
Jaundice

To the editor,

We have read your journal for a long time and we agree with the opinions about the clinical treatment to infants with jaundice caused by bile stenosis.

We found a significant case in recent clinical work. A 78-day-old Chinese male infant with a 78-day history of jaundice, who was born by cesarean section at 34 weeks' gestational age with a birth weight of 1930g (4.246lb). The patient had obvious yellow skin and sclera. Firstly, we considered that it was may be neonatal physiologic jaundice. But the symptoms didn't disappear after phototherapy and drug conservative treatment. On December 14, 2018, ultrasound showed that the size of the fasting gallbladder was 2.75*1.15 cm, stones were seen 1.1*0.6 cm in the gallbladder (Fig. 1 1A), and stones were seen 1.4*0.7 cm at the end of the common bile duct (Fig. 1 1B), which was also showed in MRCP (Fig. 1 1C). Liquid shock therapy had no effect, thus, we considered surgery. On examination of the abdominal cavity, the liver was dark red and showed cirrhosis with cholestasis, the gallbladder was slightly small, with a size of about 3.0*1.0 cm and the extrahepatic bile duct was dilated (Fig. 1 2A). Then we removed the gallbladder from the incision and closed pneumoperitoneum, and saw a cystic cavity with a size of 6 mm approximately. Then we placed choledochoscope and stone basket, and brown stone fragments were visible (Fig. 1 2B). We found the cystic duct was thin and tortuous, which made it failling for choledochoscope entering common bile duct. The biliary imaging was performed during the operation, which showed that extrahepatic biliary tract expansion and distal common bile duct calculi obstruction (Fig. 1 2C). Then we placed stone basket directly, and massive brown stones were triturated and taken out through rinsing. Then the second biliary imaging showed that choledocholithiasis is excreted, and no distal common bile duct stricture (Fig. 1 2D). After the operation, we did a sinus tract and fistula angiography, which showed the contrast agent was discharged smoothly (Fig. 1 3B). And ultrasound showed that the size of the fasting gallbladder was 3.3*0.4 cm with no stones (Fig. 1 3A).

Fetal gallstones occur in approximately 0.4% of fetuses, and usually resolve within several months of life.[1] There has been a research including 50 patients <1 year of age with cholelithiasis reported that nearly three-quarters (74%) of infants had underlying risk factors for the development of gallstones at the time of diagnosis. Surgical exploration is appropriate in early infancy when clinical symptoms are suddenly exacerbated. Infants <1 year of age have higher anesthetic and surgical risks.[1,2] General surgical treatment include choledochostomy and T-

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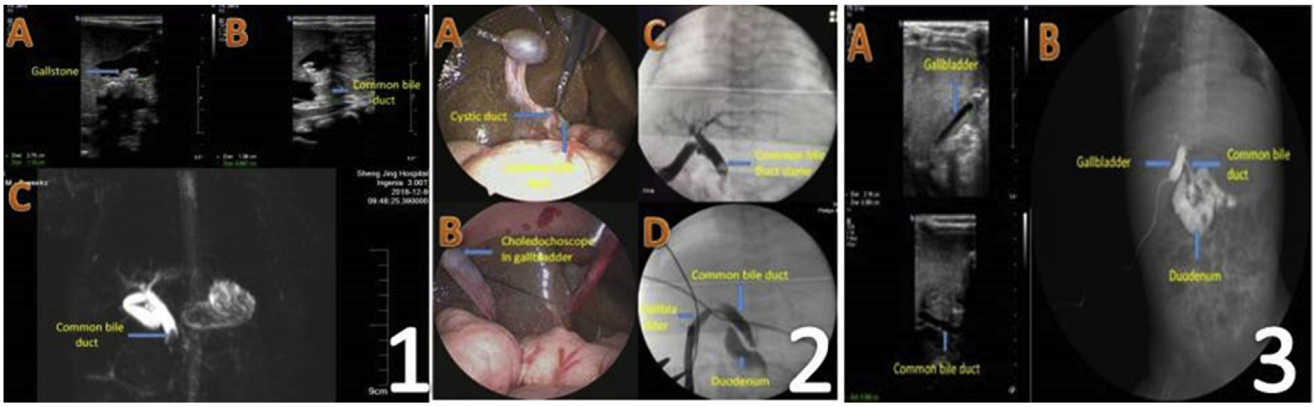

Figure 1 The imaging manifestations of the infant.

tubeplacement, choledochotomy, and choledocho duodenostomy. However, choledochostomy and T-tube placement may be technically challenging and could result in subsequent biliary complications including bile peritonitis and bile duct stricture.[3,4]

The stone clearance of LTCBDE was equal to that of LCBDE, and LTCBDE demonstrated a shorter operative time, lower blood loss, less injury of biliary system and other advantages.[5] We can see the surgery has a good prognosis from the case. Thus, it may provide a brand new approach for the treatment of obstructive jaundice in infants.

Conflict of interest

All authors declare there is no conflict of interest.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.asjsur.2019.05.013.

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