

# Endoscope Entrapment in the Choledochal Duct During Endoscopic Retrograde Cholangiography for Choledocholithiasis

# UCTN



Figure 1 Endoscopic retrograde cholangiogram showing marked dilatation of the common bile duct and a large stone impacted in the lower third of the duct.

A rare complication of endoscopic retrograde cholangiography is the entrapment of a Dormia basket during extraction of an impacted stone. The basket is usually retrieved after mechanical, shock-wave or laser lithotripsy. Open or laparoscopic surgery is rarely required [1].

We report our experience with a 74-year-old male patient who presented with cholangitis 6 years after laparoscopic cholecystectomy. Endoscopic retrograde cholangiography identified Vater's papilla in a large duodenal diverticulum. After failure of papillary cannulation, needle-knife papillotomy was attempted but was abandoned due to hemorrhage. On a second attempt, 2 days later, we successfully performed a wide sphincterotomy. Cholangi-

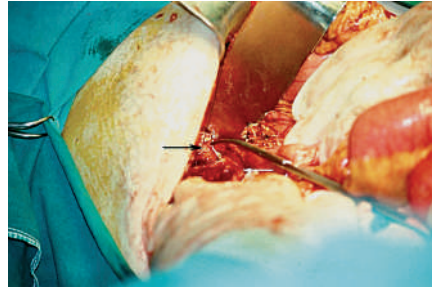


Figure 2 The mechanical lithotripter (black arrow) has just been released from the stone through the choledochotomy. The choledochal duct (white arrow) appears dilated because of the impacted duodenoscope. The endoscope and the mechanical lithotripter were retrieved orally and the stone, which was approximately 2 cm in diameter, and the lodged Dormia basket were removed through the choledochotomy.

ography revealed an impacted common bile duct stone (Figure 1). A Dormia basket without lithotripter capabilities (GC Medical, Athens, Greece) was selected because of its lower cost. Unfortunately, this became lodged around the firmly impacted stone. After cutting the basket's wire we introduced a 3.2-mm disposable mechanical lithotripter (Olympus Optical Co., Tokyo, Japan) but this failed to break up the stone due to entanglement of the wires and also became trapped. When attempting to remove it, the side-viewing single-lumen Olympus duodenoscope was accidentally inserted into the common bile duct and became firmly trapped. All attempts at dislodging the endoscope were unfruitful. The patient was then intubated and transferred to the operating room. Using a Kocher incision, a vertical choledochotomy was performed. The mechanical lithotripter, the endoscope (Figure 2), the stone, and the basket were removed. A T tube (no. 6) was inserted and the patient made an uncomplicated recovery.

Impaction or entrapment of the basket occurs in about 6% of endoscopic retrograde cholangiopancreatography procedures performed for choledocholithiasis [2]. Dormia baskets with lithotripter cap-

abilities do not preclude basket entrapment but they do decrease the possibility of this occurring. When the basket becomes entrapped it can be removed either endoscopically or laparoscopically [1–3], but there have been no previous reports on the management of endoscope entrapment.

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