



EP-002

## Surgical Management Of A Failed ERCP With Retroperitoneal Perforation Due To Impacted Choledocholithiasis : A Case Report

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**Background** : Treatment for choledocholithiasis has evolved to prioritize endoscopic removal over traditional surgical approaches, such as choledochotomy with T-tube insertion. Endoscopic treatment, performed by experienced gastroenterologists, boasts a success rate of over 90%. However, in cases of failed endoscopic treatment or the occurrence of complications such as perforation, surgical intervention becomes necessary. In this report, we present an unusual case of a patient who underwent surgical treatment after failed endoscopic therapy and the development of a perforation complication.

**Methods** : A 83-year-old female patient was initially diagnosed with a 12mm-sized stone in the proximal common bile duct (CBD) at another hospital. An endoscopic retrograde cholangiopancreatography (ERCP) was attempted to remove the stone. During mechanical lithotripsy for the impacted stone in the distal CBD, a quarter of the retrieval basket's wire was accidentally cut, halting the procedure. The patient was then transferred to our emergency department, where a CT scan revealed retroperitoneal free air around the duodenum, suggesting a suspected duodenal or CBD perforation. An exploratory laparotomy was performed.

**Results** : Despite careful examination up to the posterior wall of the duodenum using the Kocher maneuver, the perforation site could not be identified. Due to the possibility of CBD perforation, we opted for pyloric exclusion with CBD exploration, followed by a Roux-en-Y choledochojejunostomy and gastrojejunostomy with cholecystectomy. During CBD exploration, a 1.2cm black pigmented stone was found impacted in the distal portion, along with one cut wire from the retrieval basket. Stone with basket were extracted and wires were removed via the patient's nose. Pyloric exclusion was performed to address the potential for distal CBD perforation, and biliary drainage was established through choledochojejunostomy. Food passage was redirected through gastrojejunostomy.

**Conclusions** : A follow-up CT on postoperative 8th day indicated a patent bile duct and the absence of retroperitoneal free air, suggesting a successful treatment outcome. Although double bypass procedure was more complex as compared to choledocholithotomy or choledochojejunostomy, it is believed to be an effective method of approach for addressing the unknown retroperitoneal side injury, as in this case. However, less invasive procedures should be carefully considered before operation as more complex procedures increase risk of postoperative complications.

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