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Endoscopic removal of fractured basket traction wire

Basket is used commonly in the removal of biliary stones in endoscopic retrograde cholangiopancreatography (ERCP) (1). Fracture of basket traction wire is quite a rare complication of ERCP.

A62-years old female patient presented to another hospital with complaints of nausea, vomiting and upper right quadrant pain since one week, and abdominal ultrasonography revealed that intrahepatic bile ducts and the common bile duct were dilated. Magnetic resonance cholangiopancreatography was performed at the same hospital and a filling defect of 8.5 mm was noted at the mid level of common bile duct. The stone could not be removed with balloon during sphincterotomy with ERCP. A 7-french 10 cm plastic biliary stent was inserted into the common bile duct extending to the proximal of the stone, and the patient was referred to our clinic for impacted common bile duct stone. Patient was admitted to the ERCP education video conference system at our clinic as a live case presentation of difficult stone. The plastic stent was removed with snare during duodenoscopy. Cholangiography demonstrated filling defect at common bile duct suggestive of stone and relative stenosis at the distal of common bile duct. The stone could not be pulled to duodenum with stone removal basket. Mechanical lithotripsy was therefore tried; however the basket traction wire was fractured during mechanical lithotripsy. Trial of common bile duct dilatation with biliary dilatation balloon also proved unsuccessful. Proximal piece of the basket was held endoscopically with the biopsy forceps, and it was pulled to duodenum through the common bile duct by first forward then backward traction of the biopsy forceps (Figure 1). The ERCP process was terminated with the insertion of a 7-french 10 cm plastic biliary stent to the common bile duct.

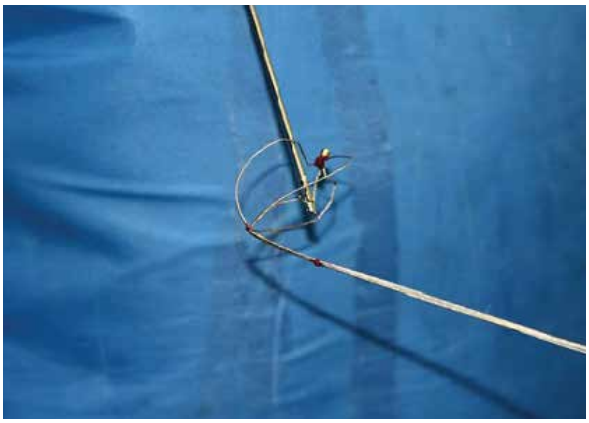

Figure 1. Endoscopic removal of fractured basket traction wire with endoscopic biopsy forceps

Lithotripsy is commonly performed in impacted common bile duct stones. Potential complications of lithotripsy include bleeding, perforation and basket impaction. However, fracture and impaction of the basket wire is quite a rare complication of mechanical lithotripsy. There are few literature cases on catching the basket with basket, ESWL, expansion of the sphincterotomy, balloon removal and insertion of biliary stent in case of basket impaction (2-4). Traction of the basket to the common bile duct with forward and backward maneuvers with the biopsy forceps performed in our case in the management of this difficult and rare complication might be an effective treatment option.

Conflict of Interest: No conflict of interest was declared by the authors.

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