Percutaneous transhepatic biliojejunal rendezvous technique for biliary obstruction with Billroth II anatomy

A 92-year-old man underwent a Billroth II procedure with isoperistaltic anastomosis for a distal gastric cancer and cholecystectomy for gallstones. On the second postoperative day, the patient began to develop signs of jaundice. A computed tomography (CT) scan showed iatrogenic common bile duct occlusion. The patient underwent an urgent percutaneous transhepatic cholangiogram (PTC) and had an 8.5-Fr external biliary drain (Cook, Bloomington, Indiana, USA) positioned. After multidisciplinary consultation, it was decided that the patient was a candidate for a combined radiologic and endoscopic (rendezvous) procedure. With the patient under general anesthesia, an endoscopic retrograde cholangiopancreatography (ERCP) of the afferent limb showed that it was not possible to cannulate the papilla. Therefore, after overdistension of the distal part of the afferent limb, the back part of a 260-cm, 0.035-inch guide wire (Terumo, Tokyo, Japan) was passed through the retroperitoneal space from the distal part of the occluded common bile duct into the afferent limb (Fig. 1 and Fig. 2). The endoscope was then used to grab the guidewire and an 8.5-Fr internal–external biliary drain was positioned (Fig. 3 and Fig. 4).

After an ultrasound 1 month after biliary drainage had confirmed fibrosis of the retroperitoneal space at the hepatic hilum, an 8 × 60-mm biliary covered stent (Viabil; Gore, Flagstaff, Arizona, USA) was positioned using the rendezvous technique (Fig. 5). A final check demonstrated good expansion of the biliary covered stent and normal passage of contrast medium from the biliary tree into the afferent limb with no evidence of leakage (Fig. 6). The patient’s condition has remained stable during the 4 months of follow-up to date.

Bile duct transection is an infrequent complication of biliary tract surgery, but it carries potentially devastating aftereffects [1]. Combined radiologic and endoscopic procedures are well known, but their use outside the biliary tree to recreate a connection between the bile duct and the bowel has rarely been described in the literature [2–4]. This case demonstrates the feasibility of the rendezvous technique in recreating a direct connection between the biliary tree and the bowel.

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