Transpapillary EUS-guided retrograde puncture of the biliary tree as an alternative for failed rendezvous procedure

Endoscopic retrograde cholangiopancreatography (ERCP) is a first-line therapeutic method for obstructive biliary pathologies. Rarely, this procedure fails to obtain access and/or drainage of the biliary tree [1]. Until recently, such patients could be managed only via a percutaneous or surgical approach. An emerging alternative is endoscopic ultrasound (EUS)-assisted biliary access and drainage, namely rendezvous procedure. However, this technique is unsuccessful in 25% of patients [2].

We present a case of a 63-year-old man with diagnosis of pancreatic head tumor, stage IIA (according to American Joint Committee of Cancer, seventh edition), who was scheduled for surgery when he developed acute cholangitis. The patient had undergone antrectomy and gastrojejunostomy with Billroth II reconstruction 20 years previously due to a pyloric stenosis. On the blood tests, he had elevated inflammatory parameters (17 000 leucocytes/mm³, 93% neutrophils, C-reactive protein 9.5 mg/dL) and cholestasis (alkaline phosphatase 472 U/L, gamma-glutamyl transferase 1192 U/L, alanine aminotransferase 222 U/L, aspartate aminotransferase 105 U/L, total bilirubin 9.4 mg/dL, and direct bilirubin 7.9 mg/dL). The imaging tests revealed a dilated common bile duct (CBD), with a diameter of 13 mm. An ERCP was attempted but cannulation was not achieved, although pre-cut was performed. Therefore, an EUS-guided transjejunal puncture of the CBD was performed using a 19-gauge needle (Fig. 1). The cholangiography showed dilation of the CBD as described above, with a distal stenosis. A 0.035-inch guidewire was then passed through the needle into the CBD, but its constant proximal orientation prevented a rendezvous procedure (Fig. 2). We then attempted an EUS retrograde approach, with direct puncture of the CBD, through the papilla and with fluoroscopic control (Fig. 3). A plastic stent (10 Fr/5 cm) was placed, resulting in immediate output of bile and pus (Figs. 4–8). The patient recovered well clinically and underwent cephalic duodenopancreatectomy 1 week later.
Advances made in EUS have enabled the implementation of various methods of alternative access to the biliary tree [3–5]. In this case, we demonstrated that an EUS-guided retrograde approach to the biliary tree, through the papilla and with fluoroscopic control, is a feasible technique for decompressing the biliary tree when rendezvous fails.

Endoscopy_UCTN_Code_TTT_1AR_2AC

Competing interests: None

References

Vera Costa Santos, Nuno Nunes, Filipa Ávila, Ana Catarina Rego, José Renato Pereira, Nuno Paz, Maria Antónia Duarte
Gastroenterology, Hospital do Divino Espírito Santo de Ponta Delgada, Ponta Delgada, Portugal

Bibliography
DOI http://dx.doi.org/10.1055/s-0033-1359141
Endoscopy 2014; 46: E93–E94
© Georg Thieme Verlag KG Stuttgart · New York
ISSN 0013-726X

Corresponding author
Vera Costa Santos, MD
Gastroenterology
Hospital do Divino Espírito Santo de Ponta Delgada
Rua Professor Alfredo Bensaude, nº 10, 1º direito
9500-700 Ponta Delgada
Portugal
Fax: +351-967-358334
vera@multi.pt

Fig. 7 Plastic stent in common bile duct.

Fig. 8 Efficient drainage of the biliary tree.