Endoscopic ultrasound-guided transhepatic biliary drainage in altered anatomy: a two-step approach

Endoscopic ultrasound (EUS)-guided biliary drainage has been used for more than a decade as an alternative to percutaneous drainage. It offers a minimally invasive option for patients in whom conventional endoscopic retrograde cholangiopancreatography (ERCP) is unfeasible.

A 45-year-old woman with a history of cholecystectomy for cholecystitis, complicated by common bile duct transection with a subsequent Roux-en-Y hepaticojejunostomy was admitted with recurrent cholangitis. A previous attempt at balloon enteroscopy-assisted ERCP had failed and therefore EUS-guided biliary drainage was performed.

The echoendoscope was used to identify the left intrahepatic duct (LIHD) and a 19-gauge needle was used to access the duct. Cholangiogram showed a dilated LIHD with an anastomotic stricture (**Fig. 1 a**, **Video 1**). A guidewire was advanced into the LIHD under fluoroscopic guidance. Multiple attempts to cross the stricture with the guidewire were unsuccessful. A plastic double-pigtail hepaticogastrostomy stent was placed (**Fig. 1 b**, **Video 1**) and the patient was discharged home.

On follow-up endoscopy 2 months later, the guidewire was advanced across the anastomotic stricture via manipulation of a swing-tip catheter. Dilation of the stricture was performed and a transanastomotic hepaticogastrostomy stent was placed (**Fig. 1 c**, **Video 1**). At 1-year follow-up, the patient had experienced no further episodes of cholangitis.

This case highlights a two-step antegrade approach to treat recurrent cholangitis and an anastomotic stricture in a patient with surgically altered anatomy [1]. EUS-guided biliary drainage constitutes the least invasive approach in patients with surgically altered anatomy [2,3].

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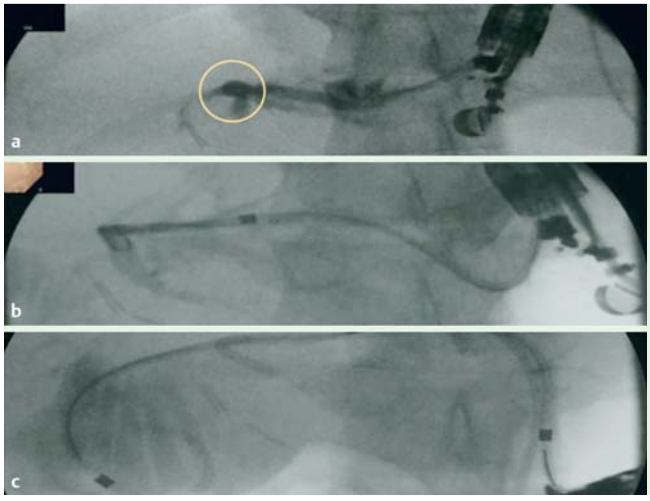

Fig. 1 Three steps for successful treatment of cholangitis and anastomotic stricture. **a** Cholangiogram showing anastomotic duct stricture (circle). **b** Deployment of the hepaticogastrostomy stent. **c** Follow-up jejunohepaticogastrostomy stent placement across the anastomotic stricture.

Video 1

Two steps for successful treatment of cholangitis and anastomotic stricture.

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References

1 *Iwashita T*, *Doi S*, *Yasuda I*. Endoscopic ultrasound-guided biliary drainage: a review. Clin J Gastroenterol 2014; 7: 94 – 102
2 *Siripun A*, *Sripongpun P*, *Ovartlarnporn B*. Endoscopic ultrasound-guided biliary intervention in patients with surgically altered anatomy. World J Gastrointest Endosc 2015; 7: 283 – 289
3 *Artifon EL*, *Aparicio D*, *Paione JB* et al. Biliary drainage in patients with unresectable, malignant obstruction where ERCP fails. J Clin Gastroenterol 2012; 46: 768 – 774

Bibliography

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