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Side-viewing duodenoscope retroflexion method for bile duct cannulation and sphincterotomy in patient with Billroth II anatomy

An 80-year-old man with obstructive jaundice and prior conventional Billroth II gastrectomy was referred for endoscopic retrograde cholangiopancreatography (ERCP). The procedure was carried out with a side-viewing duodenoscope (Olympus TJF-145, Olympus Surgical Technologies Europe, Olympus Winter & Ibe GmbH, Hamburg, Germany) and standard sphincterotome. The afferent limb was intubated and the papilla approached from below which located both the direction of cannulation and the duodenal stump to appear toward the 6 o'clock position. Several attempts to cannulate the papilla in this position failed. Therefore, the duodenoscope was slightly advanced forward (toward the duodenal stump) while its tip was retroflexed, which enabled repositioning of the papilla with the bile duct now toward the 11 o'clock direction. This retroflexion duodenoscope maneuver enabled bile duct cannulation and sphincterotomy with a standard spincterotome (Fig. 1; Video S1). Cholangiogram

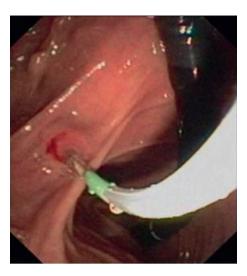


Figure 1 Duodenoscope with retroflexed tip maneuver enables repositioning of papilla with the bile duct toward the 11 o'clock direction which allowed bile duct cannulation and sphincterotomy with a standard sphincterotome.



Figure 2 Successfully inserted bile duct stent. Typical upside down appearance of the papilla in Billroth II anatomy. Papilla and duodenal stump appear toward the 6 o'clock position.

showed a 10-mm bile duct stone that was difficult for endoscopic extraction and therefore the biliary stent was successfully inserted (Fig 2). The patient tolerated the procedure well and there were no associated complications. Jaundice resolved within 7 days.

ERCP in patients with Billroth II anatomy is technically difficult and sphincterotomy can be particularly challenging. There is no standardized approach on how to cannulate the papilla in these patients although a number of techniques have been proposed and specifically designed

sphincterotomes have been developed. 1-5 The currently described technique allowed successful cannulation and safe sphincterotomy in our Billroth II patient with the use of a conventional side-viewing duodenoscope and standard sphincterotome. To our knowledge, this approach has not been previously reported. 1-5 The proposed maneuver represents an alternative technique for papillary cannulation and sphincterotomy in selected patients with Billroth II anatomy who have appropriate length and sufficient width of the afferent limb to allow safe retroflexion of the duodenoscope.

The authors declare no conflicts of interest for this article.

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SUPPORTING INFORMATION

DDITIONAL SUPPORTING INFORMATION may A be found in the online version of this article at the publisher's web site.

Video S1 Retroflexion duodenoscope maneuver enabled bile duct cannulation and sphincterotomy with a standard spincterotome in Billroth II anatomy.

Biopsy forceps fixation: Novel trick of the trade for duodenal guidewire unlooping

Bile duct stenting remains the clinical mainstay for establishing biliary drainage in malignant or benign strictures with successful and stable deep guidewire passage being essential. Duodenal loop formation of an effectively inserted guidewire may occasionally occur and threatens the procedural success in day-to-day endoscopic retrograde cholangiography (ERC) practice, which may be even more troublesome after cumbersome guidewire passage in the first place. Attempts to rescue wire positioning often fail, as the wire is typically in a dead angle with a tendency to completely slip out of position no matter how the scope or cannula is navigated. Herein, I present an easy-to-implement novel approach for duodenal guidewire unlooping, dubbed the 'biopsy forceps fixation technique'.

Figure 1a illustrates duodenal loop formation, and guidewire rescuing by scope and cannula manipulation proved unsuccessful with the wire in a dead angle. Therefore, after withdrawal of the cannula, a standard biopsy forceps with alligator cups (Endo-flex, Voerde, Germany) is introduced through the 4.2-mm working channel of a therapeutic standard duodenoscope (Fujinon ED530-XT8; Fujinon, Hamburg, Germany) and the guidewire (0.025" Jagwire; Boston Scientific, Ratingen, Germany) grasped close to the papilla (Fig. 1b). After successful grip, unlooping is achieved by pulling on the wire, thus straightening it, with its tip remaining in place by virtue of biopsy forceps fixation (Fig. 2). After correction of guidewire positioning, successful biliary metal stenting was carried out following 6-mm balloon dilation of tight and complex tandem strictures in the distal bile duct as a result of an advanced pancreatic head mass in an elderly patient.

The technique presented for duodenal guidewire unlooping, resorting to ubiquitously available equipment, appears suitable for ad-hoc use in endoscopy practice, rescuing and safeguarding procedural completion.

The author declares no conflicts of interest for this article.





Figure 1 (a) Duodenoscopic view of a looped guidewire (0.025" Jagwire; Boston Scientific, Ratingen, Germany). Note the papillary orifice at the 1 o'clock position highlighted by an air bubble (Fujinon ED530-XT8; Fujinon, Hamburg, Germany). (b) Firm grasping of the guidewire close to the papillary orifice by a standard biopsy forceps with alligator cups (Endo-flex, Voerde, Germany).