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**Title page**

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

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**Main text**

An 80-year-old male with obstructive jaundice and prior conventional Billroth II gastrectomy was referred for ERCP. The procedure was performed with side-viewing duodenoscope (Olympus TjF-145) and standard sphincterotome. The afferent limb was intubated and papilla approached from below which located both the direction of cannulation and duodenal stump to appear toward 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 11 o'clock direction. This retroflexion duodenoscope maneuver enabled bile duct cannulation and sphincterotomy with a standard spincterotome **(Fig. 1; Video 1)**. Cholangiogram showed a 10mm bile duct stone that was difficult for endoscopic extraction and therefore 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 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.

**References**

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**Video and figure legend**

**Video 1** Retroflexion duodenoscope maneuver enabled bile duct cannulation and sphincterotomy with a standard spincterotome in Billroth II anatomy.

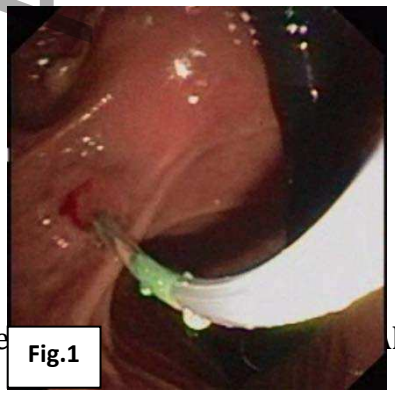


**Fig.1**

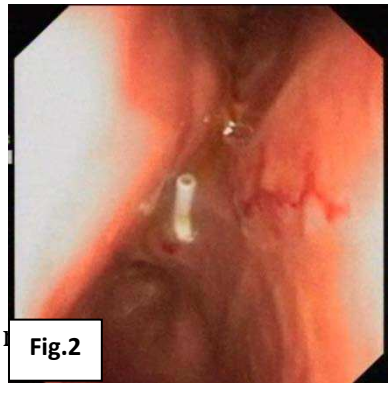
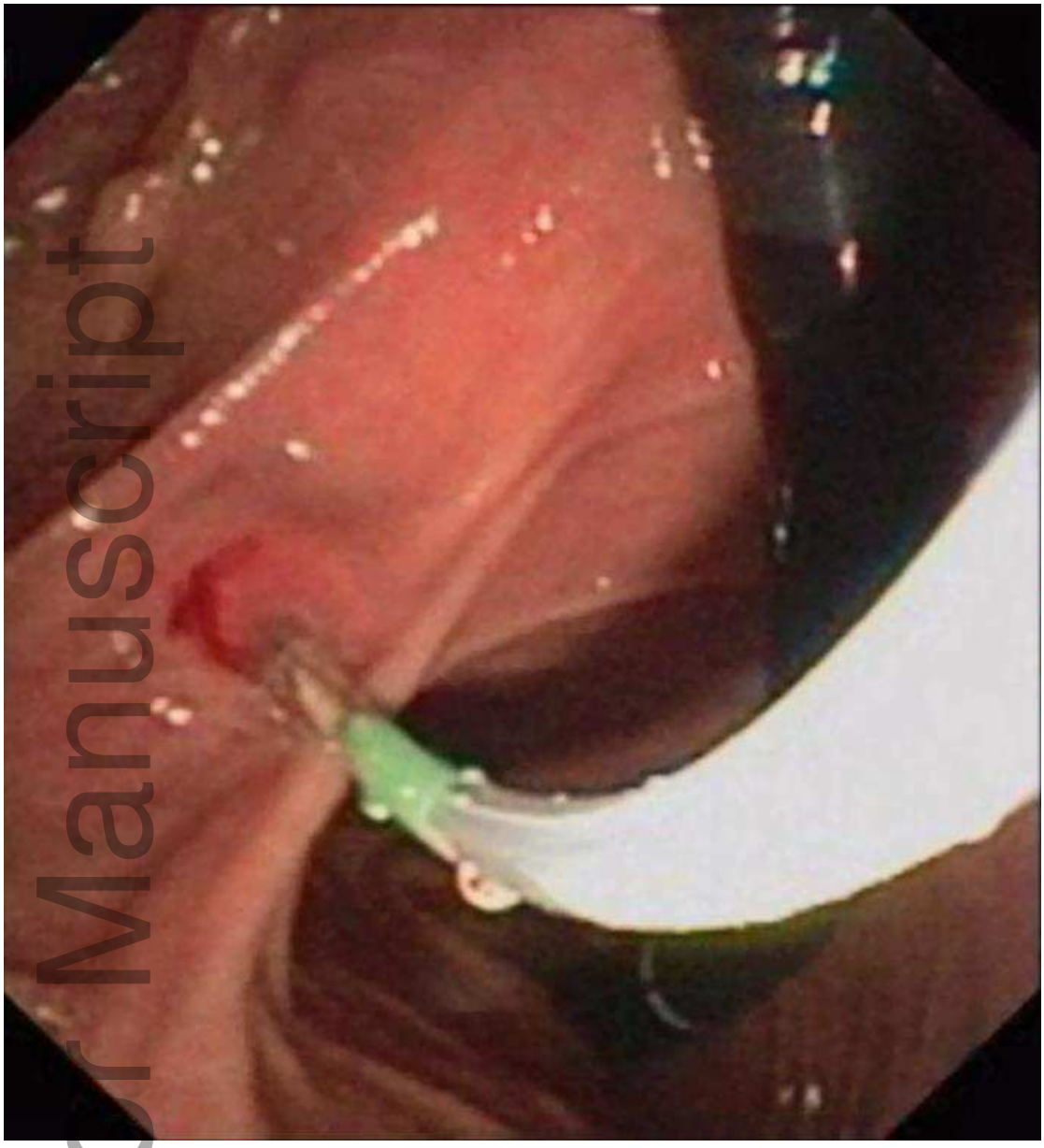


**Fig.2**

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

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



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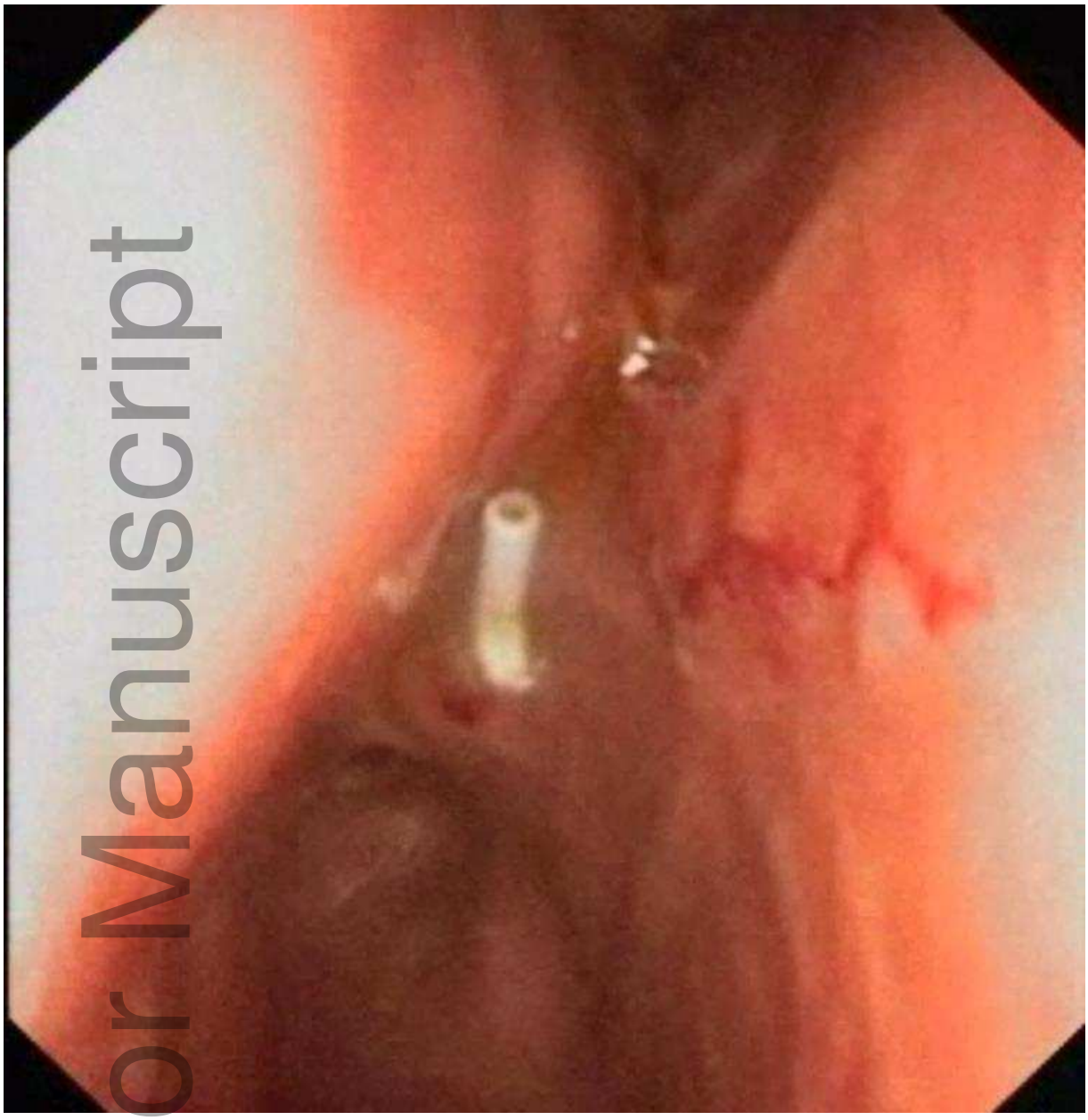

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