

EUS-guided gastroenterostomy: Less is more! The wireless EUS-guided gastroenterostomy simplified technique



For patients with either benign or malignant gastric outlet obstruction, surgical gastroenterostomy, the standard of care for many years, seems to be losing ground to EUS-guided gastroenterostomy.¹⁻³ Various technical approaches to this endoscopic technique have been described, although the direct method, using only a nasojejunal catheter, 19-gauge needle, and lumen-apposing metal stent, has been suggested as the preferred method.⁴ In the February issue of *VideoGIE*, Irani et al⁵ gave their expert overview of 5 different EUS-guided gastroenterostomy techniques in their technical review “EUS-guided gastroenterostomy: techniques from East to West.” Although we completely agree with the authors that superiority of 1 of 5 techniques has not been proven to date, we would like to add a sixth approach, which may also potentially improve cost effectiveness and time efficiency.

From 2017 to 2020, a total of 45 EUS-guided gastroenterostomy procedures were performed at the University Hospitals Leuven (Belgium) and San Raffaele Scientific Institute (Milan, Italy) using a needle and wireless direct method, which we named the wireless EUS-guided gastroenterostomy simplified technique (WEST). This technique involves infusion of water into the small bowel through a nasojejunal catheter and subsequent EUS transgastric identification of the distended loop by visualization of both the catheter and fluid cavitation during injection, followed by “free-hand” direct penetration of the electrocautery-enhanced lumen-apposing metal stent and its immediate deployment.⁶ In our opinion, confirmatory puncture by a 19-gauge needle and guidewire cannulation is an unnecessary step once the distended small bowel and nasojejunal catheter are visualized adequately by EUS; it increases costs and procedure duration and may lead to a false sense of security. (A contrast-injected loop might be either a distant jejunoileal loop or even large intestine.) Although one could argue that omitting this step could increase technical failures, using WEST we have only identified 1 unrelated technical failure (2.2%), due to the inability to advance the nasojejunal catheter through the duodenal stenosis.

Similar to various other aspects of modern medicine, we think that in the context of WEST, less is more.

DISCLOSURE

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holds consultancy agreements with Cook, Pentax, and Olympus. Dr Laleman co-chairs the Boston Scientific Chair in Therapeutic Biliopancreatic Endoscopy with Dr Van der Merwe and has consultancy agreements with Boston Scientific and Cook. Dr van Malenstein holds a consultancy agreement with Boston Scientific. All other authors disclosed no financial relationships.

Abbreviation: WEST, wireless EUS-guided gastroenterostomy simplified technique.

Michiel Bronswijk, MD
Hannah van Malenstein, MD, PhD
Wim Laleman, MD, PhD
Schalk Van der Merwe, MD, PhD

*Department of Gastroenterology and Hepatology
 University Hospitals Gasthuisberg, University of Leuven
 Leuven, Belgium*

Giuseppe Vanella, MD
Maria Chiara Petrone, MD
Paolo Giorgio Arcidiacono, MD, PhD

*Pancreatobiliary Endoscopy and EUS Division
 IRCSS San Raffaele Scientific Institute, Vita-Salute San Raffaele
 University
 Milan, Italy*

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Response:



We would like to thank Bronswijk et al¹ for their cogent comments and for their series on performing EUS-guided gastroenterostomy.²

We agree that cost efficiency is unquestionably an important part of health care in a world of finite resources

and in avoiding waste. The transverse colon is in close proximity to the greater curvature of the stomach. Although this part of the colon is often recognizable by the air in it, it can rarely be fluid-filled and mistaken for the small bowel.

Using a 19-gauge needle puncture to confirm that the duodenum or jejunum is what is being visualized as the intended target for the anastomosis is a simple way to avoid a devastating adverse event in gastrocolostomy, which has unfortunately happened even in expert hands. However, when the nasojejunal tube is visualized in the small bowel or when Doppler flow during rapid infusion allows confirmation of the small bowel, we agree that the needle puncture step can be avoided. For providers starting to perform EUS-guided gastroenterostomy, we recommend a finder needle as a quick (inexpensive) initial step to avoid a devastating adverse event in what is often a fragile patient population.

With regard to deployment of the lumen-apposing metal stent over a guidewire, this is not done with the antegrade EUS-guided gastroenterostomy or “direct” method (the technique most of the authors have been using for several years now). In fact, we believe the guidewire may contribute to misdeployments by pushing the small bowel away while opening the duodenal/jejunal flange. Some providers dilate the lumen-apposing metal stent after deployment. In that case, the same guidewire used to pass the nasojejunal tube can be reused for the balloon dilation. However, most of the authors do not believe it is necessary to dilate the lumen-apposing metal stent, and anecdotally, there may be a slightly higher risk of bleeding with balloon dilation.

DISCLOSURE

Drs Irani, Itoi, Baron, and Khashab are consultants for Boston Scientific. Dr Irani is also a consultant for GORE Medical.

Shayan Irani, MD

*Digestive Disease Institute at Virginia Mason Medical Center
Seattle, Washington*

Takao Itoi, MD

*Department of Gastroenterology and Hepatology
Tokyo Medical University
Tokyo, Japan*

Todd H. Baron, MD

*Division of Gastroenterology and Hepatology
University of North Carolina
Chapel Hill, North Carolina*

Mouen Khashab, MD

*Division of Gastroenterology and Hepatology
Johns Hopkins Hospital
Baltimore, Maryland*

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