

A novel spiral dilator for pancreatic duct drainage: catching two birds with one stone

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See “Safety and efficacy of endoscopic ultrasound-guided pancreatic duct drainage using a drill dilator: a retrospective study from Japan” Ahmed Sadek, Kazuo Hara, Nozomi Okuno, et al., Clin Endosc 2024;57:666–674.

Endoscopic ultrasound-guided pancreatic duct drainage (EUS-PDD) is an alternative technique that can be used when endoscopic retrograde pancreatography is not successful or feasible for patients with pancreatic duct obstruction. Either rendezvous or transmural approaches can be utilized. Many studies,¹⁻³ reviews,⁴⁻⁶ and a meta-analysis⁷ have been published on this method; most of these studies used balloon catheters for tract dilatation. The technical success of EUS-PDD is quite high at 81.4% when performed at tertiary referral centers by experienced endoscopists.⁷ However, many endoscopists agree that the most challenging part of EUS-PDD is the dilatation of the tract and subsequent stent placement.

In this issue of *Clinical Endoscopy*, Sadek et al.⁸ introduced the use of a novel drill dilator for EUS-PDD in patients with impaired pancreatic drainage. A total of 12 patients (11 with pancreaticojejunostomy anastomotic stricture and one with pancreatitis) were included in this retrospective analysis. The Tornus ES dilator (Asahi Intec), which is available in two sizes (compatible with 0.018- and 0.025-inch guidewires). Since the

shaft of the dilator is made of a coil sheath, the clockwise turning of the dilator enables the tract dilation to 7 Fr without much exertion. On the other hand, the counterclockwise turning of the dilator results in the dilator removal.

The success of EUS-PDD when using the novel dilator was similar to results from previously reported studies using other bougie or balloon dilators.¹⁻⁷ This dilator was used for both fistula and anastomotic stricture. When tract dilation was inadequate for either (for a fistula or an anastomotic stricture), the authors switched to a different Tornus ES dilator or balloon dilator additionally. The results were very promising, with a median procedure time of 24 minutes and a technical success rate of 100%. Majority of fistula dilatations were achieved with the Tornus ES dilator, with only two patients (16.7%) requiring an additional balloon dilator. Contrastingly, dilatation of the anastomotic strictures was achieved with the Tornus dilator in only 4 of 11 patients (36.3%); the remaining seven (63.6%) required an additional balloon dilator. Adverse events were reported in two of 12 patients (16.7%) who experienced low-grade fever that lasted for 1 day and resolved after a course of antimicrobial agent. No procedure-related pancreatitis, bleeding, or pancreatic juice leakage was observed.

The safety of the Tornus ES dilator in EUS-guided hepaticogastrostomy had already been investigated.⁹ The current study by Sadek et al.⁸ expanded the applications of this tool to EUS-PDD. As the authors pointed out, tract dilation to 7 Fr was “very easily” done with the Tornus ES dilator, and stricture dilation was also successful. The total procedure time was acceptably

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short (13–52 minutes). The sample size was relatively small but understandable accounting for the novelty of the dilator and the low prevalence of patients requiring EUS-PDD. Additionally, since the current study was conducted at a single center, the ease of use and maneuverability should be reproduced by other endoscopists in different centers. Long-term outcomes for patients and the use of a dilator for revision are also interesting topics to address in future research. Overall, this novel drill dilator appears to be safe and effective for use in fistulas and anastomotic strictures.

Conflicts of Interest

Jimin Han is currently serving as a section editor of *Clinical Endoscopy*; however, she was not involved in the peer reviewer selection, evaluation, or decision process of this manuscript. Han Taek Jeong declares no potential conflicts of interest.

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Author Contributions

Conceptualization: JH; Data curation: all authors; Formal analysis: all authors; Investigation: all authors; Methodology: all authors; Supervision: JH; Writing—original draft: all authors; Writing—review & editing: all authors.

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