One-step puncture and dilation with fine-gauge electrocautery dilator for endoscopic ultrasound-guided gallbladder drainage

Recently the usefulness of a novel fine-gauge electrocautery dilator (Fine 025; Medico’s Hirata Inc., Osaka, Japan) has been reported for endoscopic ultrasound (EUS)-guided therapy [1–3]. Herein we describe a successful one-step puncture and tract dilation using this dilator during EUS-guided gallbladder drainage (EUS-GBD).

An 83-year-old woman was admitted to our hospital with recurrent gallstone cholecystitis. Considering her performance status, we decided to perform EUS-GBD. The gallbladder was visualized using an echoendoscope from the duodenum. A shorter procedure time and fewer device exchanges may be required to reduce bile leakage; however, one-step devices, such as the Hot AXIOS (Boston Scientific, Marlborough, MA), are not yet available for EUS-GBD in Japan. Therefore, we attempted to puncture the gallbladder and dilate the tract in one step using a fine-gauge electrocautery dilator (Fine 025) with a preloaded 0.025-inch guidewire (VisiGlide 2; Olympus Medical Systems, Tokyo, Japan).

The gallbladder was successfully punctured with the electrocautery dilator (▶ Fig. 2), and subsequent injection of contrast medium was possible under guidewire loading (▶ Fig. 3). After the guidewire was inserted and coiled into the gallbladder under fluoroscopic guidance, the dilator was removed. A fully covered metal stent (diameter, 10 mm; length, 6 cm) (BONA stent; Standard SciTech Inc., Seoul, Korea) was successfully placed without additional tract dilation from the gallbladder into the duodenum. Finally, a 7-Fr double-pigtail plastic stent (length, 10 cm) (Mediglobe GmbH, Rosenheim, Germany) was passed from...
the gallbladder to the duodenum through the metal stent to prevent stent migration and food impaction (▶Fig. 4, ▶Video 1).

Our experience with this case suggests that puncture and tract dilation in one step using a fine-gauge electrocautery dilator is an option for EUS-GBD. Further studies involving many cases are needed to validate the safety and efficacy of this one-step procedure.

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Competing interests

The authors declare that they have no conflict of interest.

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Video 1 Puncture and tract dilation in one step using a fine-gauge electrocautery dilator during endoscopic ultrasound-guided gallbladder drainage.