Fine-gauge balloon-assisted stent removal technique for ruptured EUS-guided hepaticojejunostomy plastic stents (with video)

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EUS-guided biliary drainage has been widely attempted for failed endoscopic retrograde cholangiopancreatography.[1,2] For patients with surgically altered anatomy such as the Roux-en-Y procedure, EUS-guided hepaticojejunostomy (HJS) is performed. A covered self-expandable metal stent with a long length is normally used as an EUS-HGS stent to prevent stent migration,[3,4] but if this stent is used in EUS-HJS, collateral injury of the jejunal mucosa may occur.[5] Therefore, a novel long plastic stent (Type IT stent; Gadelius Medical Co., Ltd., Tokyo, Japan) is used as an EUS-HJS stent [Figure 1]. This plastic stent has a total length of 20 cm, an effective length of 15 cm, and 4 flanges. Among four flanges, two are at the distal and another at the proximal ends. The proximal end has a pigtail structure and the distal end is tapered. A disadvantage of the plastic stent is the risk of rupture during stent removal. This report describes balloon-assisted stent removal for a ruptured plastic stent using a balloon catheter (4 mm, REN biliary dilation catheter; KANEKA, Osaka, Japan), which top was 3 Fr. An 80-year-old male underwent total gastrectomy with the Roux-en-Y procedure due to gastric cancer 2 years earlier. During clinical follow-up, obstructive jaundice developed due to malignant peritonitis of recurrent gastric cancer. He underwent EUS-guided antegrade metal stent deployment combined with EUS-HJS using a Type IT stent [Figure 2]. A Type IT stent was deployed form the common bile duct to the intestine. Clinical follow-up was performed using laboratory examination every 2 months. However, after 6 months, he was admitted because of cholangitis due to stent occlusion. EUS-HJS removal using a forceps biopsy device was attempted after safety guidewire placement, but the plastic stent was ruptured [Figure 3]. To prevent stent migration into the biliary tract and rerupture, a 0.025-inch guidewire was inserted into the Type IT stent [Figure 4]. Then, a fine-gauge balloon catheter was inserted into the Type IT stent over the

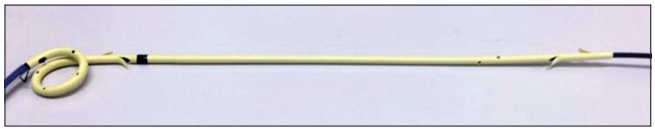

Figure 1. A dedicated plastic stent for EUS-guided transhepatic biliary drainage

Video Available on: www.eusjournal.com

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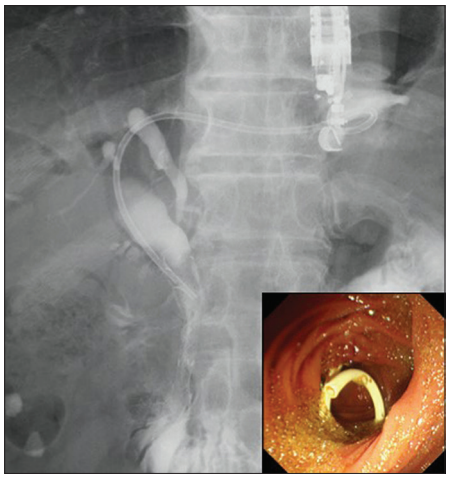

Figure 2. EUS-guided antegrade-covered metal stent deployment is performed, and plastic stent deployment is also performed from the bile duct to the intestine

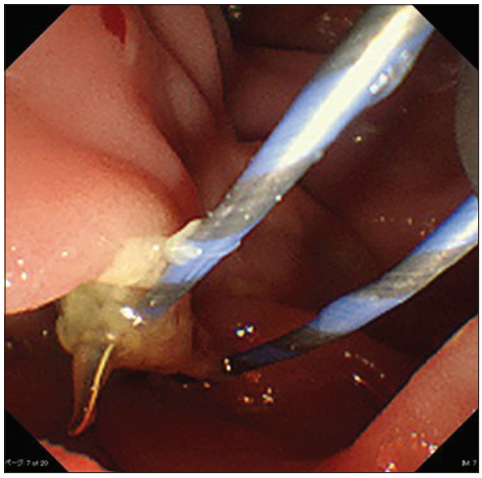

Figure 4. The 0.025-inch guidewire is inserted into the ruptured plastic stent

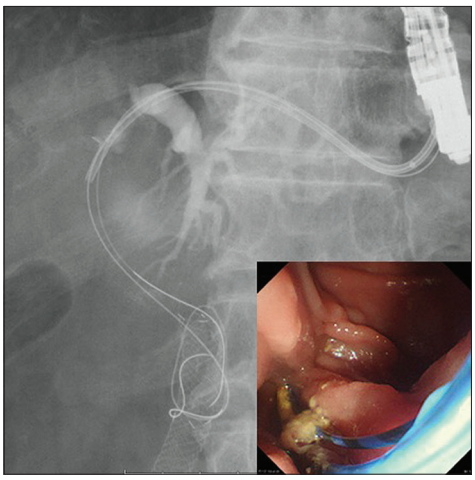

Figure 6. Stent removal is successfully performed

guidewire [Figure 5], and stent removal was successfully performed [Figure 6]. Finally, the Type IT stent was

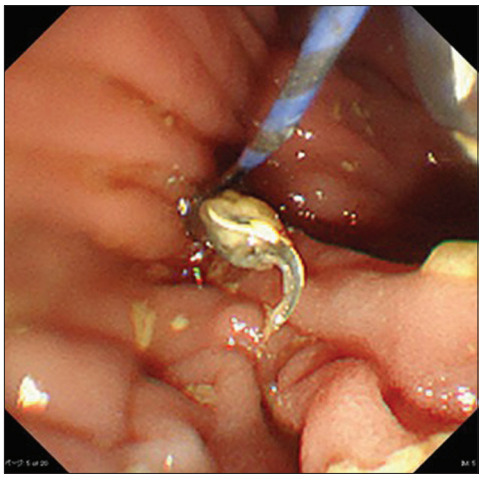

Figure 3. The plastic stent is ruptured during stent removal

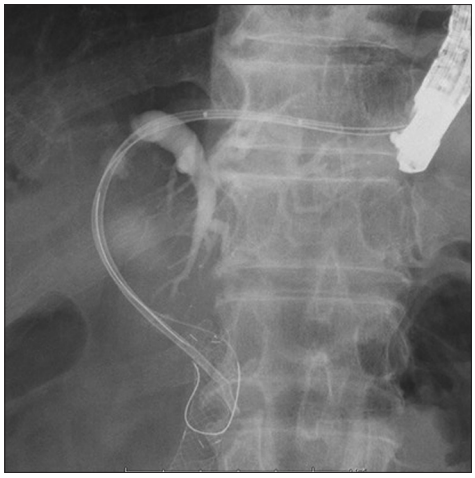

Figure 5. A fine-gauge balloon catheter is inserted into the ruptured plastic stent over the guidewire

deployed from the intrahepatic bile duct to the intestine [Video 1]. The fine-gauge balloon-assisted stent removal technique may be safe and useful for cases such as the present one.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands that his name and initial will not be published, and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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