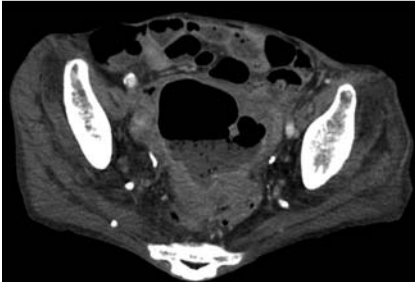
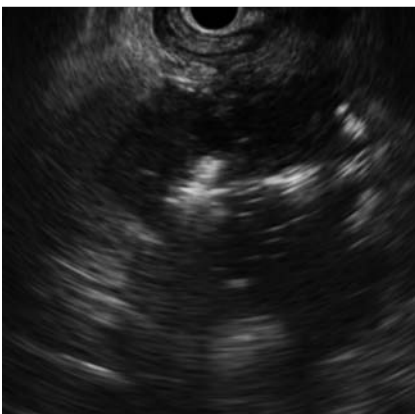


## Endoscopic ultrasound-guided pelvic abscess drainage using a dedicated, wide, flared-end, fully covered self-expandable metal stent



**Fig. 1** Computed tomography (CT) scan image showing air density in a pelvic abscess.



**Fig. 2** Endoscopic ultrasound (EUS) image at the rectosigmoid junction showing a heterogeneous lesion in the pelvic cavity that is hyperechoic in places and hypoechoic in others, consistent with an abscess.

Endoscopic ultrasound (EUS) can be used to guide drainage of pelvic abscesses. Here, we present a case of successful pelvic abscess drainage using a dedicated, wide, flared-end, fully covered self-expandable metal stent (FCSEMS).

A 68-year-old woman was admitted to our hospital with a high fever that had not settled after 4 weeks of antibiotic use. She had a history of renal transplantation and use of immunosuppressant therapy. A computed tomography (CT) scan revealed a pelvic abscess with an air density of  $7.5 \times 7.4$  cm (**Fig. 1**).

We attempted transrectal EUS-guided drainage of the abscess (**Fig. 2**). The abscess was punctured using a 19-gauge needle (EchoTip Ultra; Cook Japan, Tokyo, Japan), and a 0.025-inch guidewire (Visi-Glide 2; Olympus Medical Systems, Tokyo, Japan) was placed (**Fig. 3 a**; **Video 1**). After the guidewire had been coiled in the abscess, the echoendoscope was withdrawn, leaving the guidewire in place. A forward-viewing, double-channel endoscope (GIF-2T240, Olympus) loaded with a conventional endoscopic retrograde cholangiopancreatography (ERCP) catheter (0120211; MTW Endoskopie, Wesel, Germany) was then introduced into the rectosigmoid junction over the guidewire, but it was not possible to dilate the needle tract using the ERCP catheter.

The needle tract was therefore dilated by a 6-Fr wire-guided diathermic dilator (Cysto-Gastro-Set; Endo-Flex GmbH, Voerde, Germany) using blended cut mode, and step-up dilation was performed using dilation catheters (Soehendra Biliary Dilation Catheter, SBDC-6 and SBDC-9; Cook Japan) (**Video 1**). A dedicated, wide, flared-end FCSEMS (NAGI stent,  $1.6 \times 3$  cm; Taewoong-Medical Co. Ltd., Seoul, South Korea) and transrectal drainage catheter for irrigation were then successfully placed without complications (**Fig. 3 b, c**; **Video 1**).

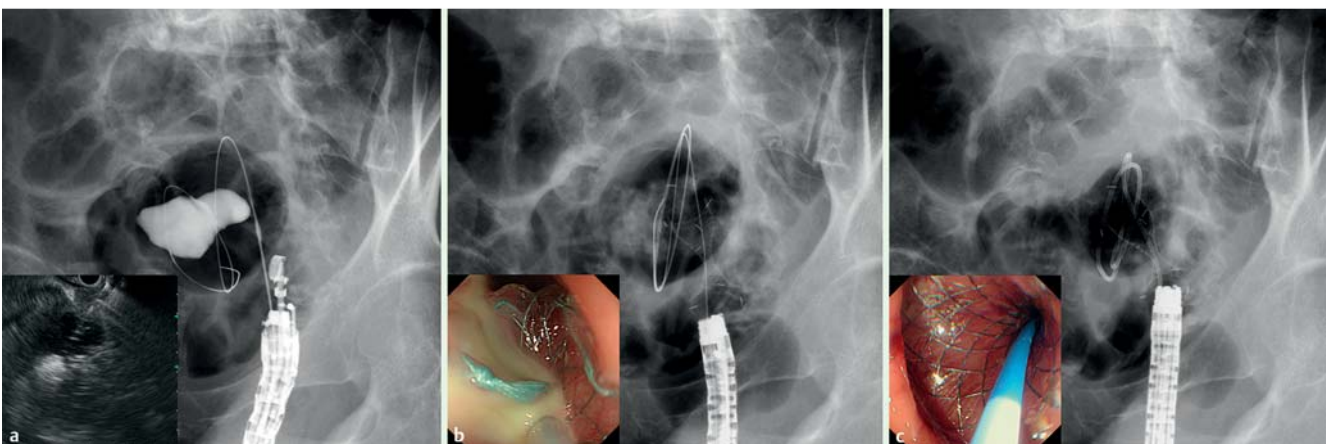
The abscess immediately shrank to a size of  $3.8 \times 3.0$  cm and the patient recovered well. Afterwards, the patient was able to receive further therapy for renal failure without the FCSEMS being removed.

EUS-guided pelvic abscess drainage, typically with single or double plastic stents, has been reported in eight case reports/

### Video 1



Endoscopic ultrasound-guided pelvic abscess drainage using a dedicated wide, flared-end, fully covered self-expandable metal stent and a 5-Fr pigtail transrectal drainage catheter for irrigation.



**Fig. 3** Radiographic images showing: **a** the guidewire being placed and coiled in the pelvic abscess (inset: endoscopic ultrasound view); **b** placement of a dedicated, wide, flared-end, fully covered self-expandable metal stent (SEMS) in the pelvic abscess (inset: endoscopic image showing a large amount of pus exuding through the stent); **c** placement of a transrectal drainage catheter for irrigation through the SEMS (inset: endoscopic view).

series [1–8]. To our knowledge, this is the first report of EUS-guided pelvic abscess drainage with a dedicated FCSEMS. A dedicated FCSEMS may be ideal for pancreatic or peripancreatic fluid collections and for treating pelvic or liver abscesses because of its antimigration features and the possibility of direct insertion through the endoscope [9, 10].

Endoscopy\_UCTN\_Code\_TTT\_1AS\_2AG

Competing interests: None

**Hiroshi Kawakami<sup>1</sup>, Masaki Kuwatani<sup>2</sup>, Shuhei Kawahata<sup>1</sup>, Yoshimasa Kubota<sup>1</sup>, Kimitoshi Kubo<sup>1</sup>, Kazumichi Kawakubo<sup>3</sup>, Naoya Sakamoto<sup>3</sup>**

<sup>1</sup> Department of Gastroenterology and Hepatology, Hokkaido University Hospital, Sapporo, Japan

<sup>2</sup> Division of Endoscopy, Hokkaido University Hospital, Sapporo, Japan

<sup>3</sup> Department of Gastroenterology and Hepatology, Hokkaido University Graduate School of Medicine, Sapporo, Japan

## References

- 1 *Giovannini M, Bories E, Moutardier V et al.* Drainage of deep pelvic abscesses using therapeutic echo endoscopy. *Endoscopy* 2003; 35: 511–514
- 2 *Varadarajulu S, Drelichman ER.* EUS-guided drainage of pelvic abscess. *Gastrointest Endosc* 2007; 66: 372–376
- 3 *Varadarajulu S, Drelichman ER.* Effectiveness of EUS in drainage of pelvic abscesses in 25 consecutive patients. *Gastrointest Endosc* 2009; 70: 1121–1127
- 4 *Fernandez-Urien I, Vila JJ, Jimenez FJ.* Endoscopic ultrasound-guided drainage of pelvic collections and abscesses. *World J Gastrointest Endosc* 2010; 2: 223–227
- 5 *Ulla-Rocha JL, Vilar-Cao Z, Sardina-Ferreiro R.* EUS-guided drainage and stent placement for postoperative intra-abdominal and pelvic fluid collections in oncological surgery. *Therap Adv Gastroenterol* 2012; 5: 95–102
- 6 *Luigiano C, Togliani T, Cennamo V et al.* Transrectal endoscopic ultrasound-guided drainage of pelvic abscess with placement of a fully covered self-expandable metal stent. *Endoscopy* 2013; 45: E245–E246
- 7 *Puri R, Choundhary NS, Kotecha H et al.* Endoscopic ultrasound-guided pelvic and prostatic abscess drainage: Experience in 30 patients. *Indian J Gastroenterol* 2014; 33: 410–413
- 8 *Hadithi M, Bruno MJ.* Endoscopic ultrasound-guided drainage of pelvic abscess: A case series of 8 patients. *World J Gastrointest Endosc* 2014; 6: 373–378
- 9 *Kawakami H, Itoi T, Sakamoto N.* Endoscopic ultrasound-guided transluminal drainage for peripancreatic fluid collections: Where are we now? *Gut Liver* 2014; 8: 341–355
- 10 *Kawakami H, Kawakubo K, Kuwatani M et al.* Endoscopic ultrasonography-guided liver abscess drainage using a dedicated, wide, fully covered self-expandable metallic stent with flared-ends. *Endoscopy* 2014; 46 (Suppl. 01): E982–E983

## Bibliography

**DOI** <http://dx.doi.org/10.1055/s-0034-1391953>  
 Endoscopy 2015; 47: E265–E266  
 © Georg Thieme Verlag KG  
 Stuttgart · New York  
 ISSN 0013-726X

## Corresponding author

**Hiroshi Kawakami, MD, PhD**  
 Department of Gastroenterology and Hepatology  
 Hokkaido University Hospital  
 Kita 14, Nishi 5, Kita-ku  
 Sapporo 060-8648  
 Japan  
 Fax: +81-11-7067867  
 hiropon@med.hokudai.ac.jp