

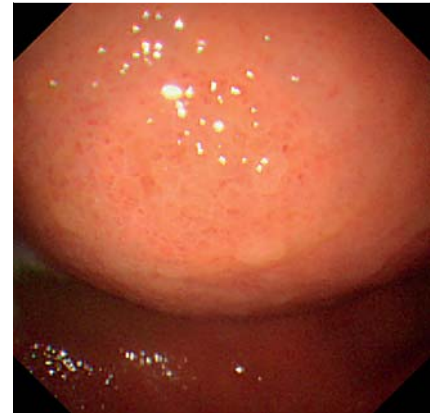
## Endoscopic ultrasonography-guided liver abscess drainage using a dedicated, wide, fully covered self-expandable metallic stent with flared-ends



**Fig. 1** An abscess in the left lobe of the liver identified at computed tomography (CT) in an 84-year-old man with a 12-day history of high fever and epigastric pain.



**Fig. 3** Radiograph showing placement of the guidewire into the cavity of the liver abscess. Inset: endoscopic ultrasonography (EUS) image showing the liver abscess as a heterogeneous hypoechoic lesion in the gastrohepatic space.



**Fig. 2** Esophagogastroduodenoscopy (EGD) shows a bulging mass in the upper body of the stomach

Endoscopic ultrasonography (EUS)-guided drainage of liver abscesses has recently become available. We present here a case of successful drainage of a liver abscess using a dedicated wide fully covered self-expandable metallic stent (FCSEMS) with flared ends.

An 84-year-old man was admitted to another hospital with a history of high fever and epigastric pain for 12 days. Computed tomography (CT) revealed a 10.3 × 6.1-cm abscess in the left lobe of the liver (Fig. 1). He was referred to our hospital

because of failure of a 1-week antibiotic regimen. Esophagogastroduodenoscopy revealed a bulging mass in the stomach (Fig. 2).

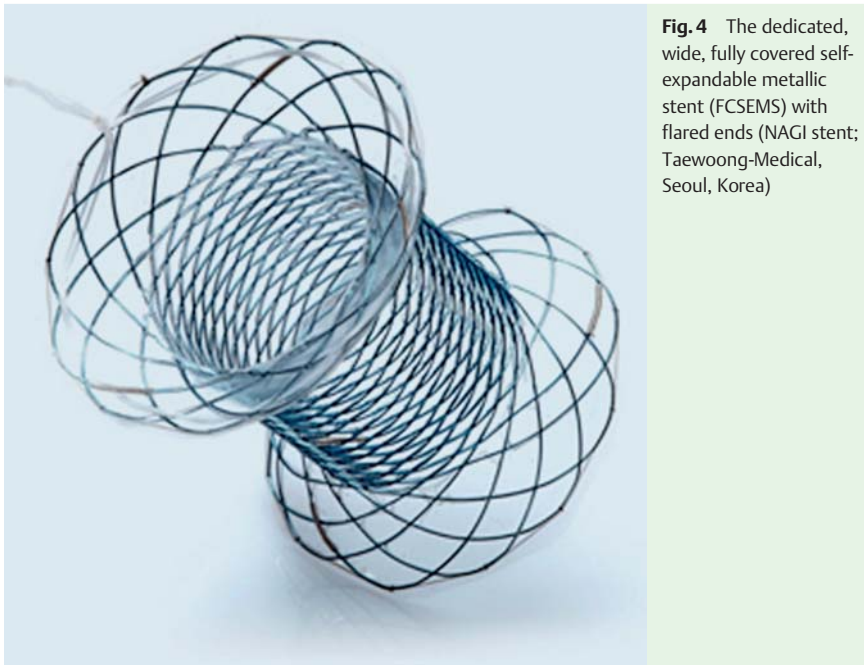
We attempted EUS-guided drainage through a transgastric approach. Using a 19-gauge needle, we punctured the abscess and placed a 0.025-inch guidewire (Fig. 3). A 6-Fr wire-guided diathermic dilator (Cysto-Gastro-Set; Endo-Flex, Voerde, Germany) was used to dilate the needle tract using a blended cut mode. Finally, a dedicated wide FCSEMS with flared

ends (NAGI stent, 16 × 3 cm; Taewoong-Medical, Seoul, Korea) was placed, without any complications (Fig. 4, Fig. 5). After stone clearance from the common bile duct, the patient was discharged on postoperative day 10 without removal of the SEMS (Fig. 6).

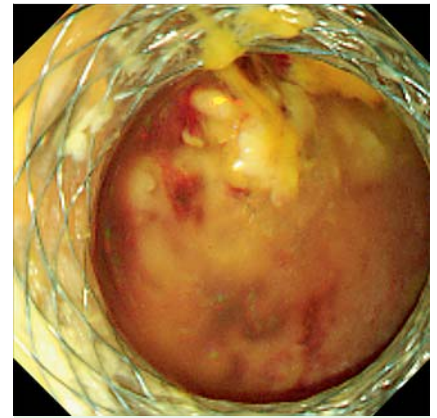
Seven cases of EUS-guided drainage of liver abscess, including one case of multiple abscesses, have been reported to date [1, 2]. The left lobe of the liver, the caudate lobe, and the gastrohepatic space usually lie in close proximity to the stomach or duodenum [1]. Therefore, EUS-guided liver abscess drainage might be safe and effective in the management of these areas. Single or double plastic stents were used in most of the reported cases [1]; the newly designed dedicated anchoring FCSEMS with a “yo-yo” shape was placed in only one patient [2]. It has been suggested that a dedicated FCSEMS is the ideal stent for treating liver abscesses and pancreatic fluid collection because of its antimigration feature and because it allows direct insertion of an endoscope through it [3].

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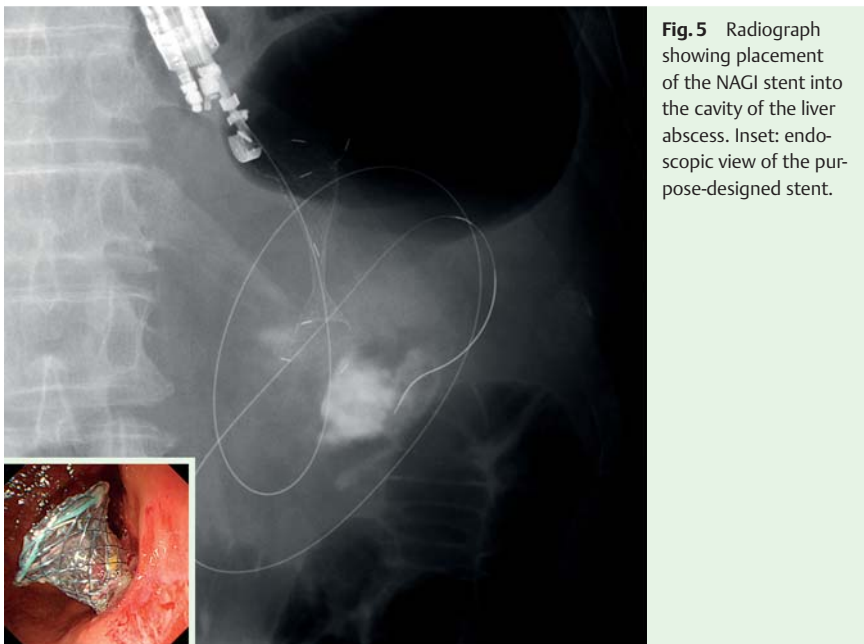
**Competing interests:** None



**Fig. 4** The dedicated, wide, fully covered self-expandable metallic stent (FCSEMS) with flared ends (NAGI stent; Taewoong-Medical, Seoul, Korea)



**Fig. 6** Endoscopic view through the NAGI stent on postoperative day 8, showing only necrotic tissues on the surface of the liver.



**Fig. 5** Radiograph showing placement of the NAGI stent into the cavity of the liver abscess. Inset: endoscopic view of the purpose-designed stent.

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#### References

- 1 Singhal S, Changela K, Lane D et al. Endoscopic ultrasound-guided hepatic and perihepatic abscess drainage: an evolving technique. *Therap Adv Gastroenterol* 2014; 7: 93–98
- 2 Alcaide N, Vargas-Garcia AL, de la Serna-Higuera C et al. EUS-guided drainage of liver abscess by using a lumen-apposing metal stent (with video). *Gastrointest Endosc* 2013; 78: 941–942
- 3 Kawakami H, Itoi T, Sakamoto N. Endoscopic ultrasound-guided transluminal drainage for peripancreatic fluid collections: Where we are now? *Gut Liver* 2014; 8: 341–355

#### Bibliography

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