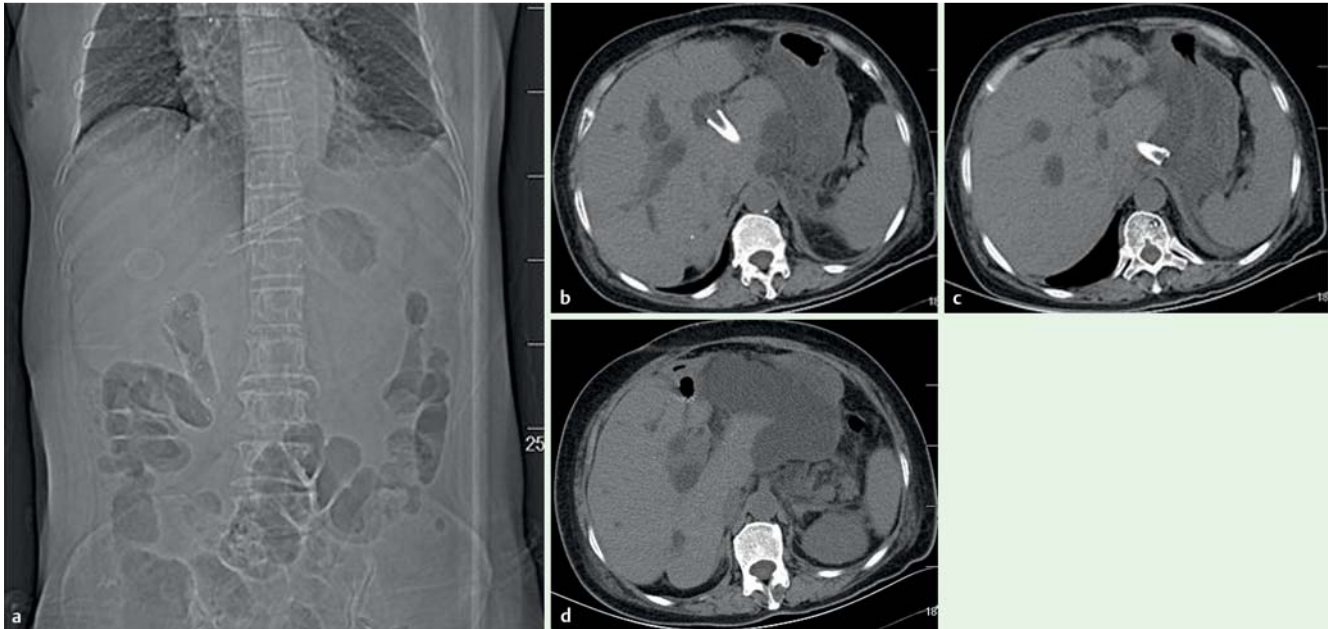
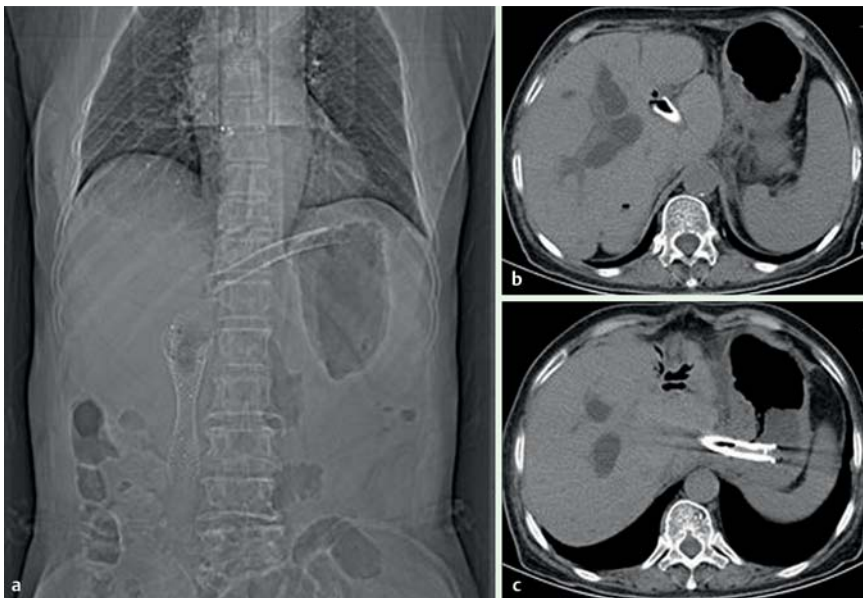


## Endoscopic ultrasound-guided repositioning of a migrated metal hepatogastrostomy stent using foreign body forceps



**Fig. 1** Computed tomography (CT) scan images showing: **a, b, c** the migrated stent; **d** an abdominal fluid collection within the omental bursa.



**Fig. 2** Computed tomography (CT) scan images approximately 2 months later showing the repositioned stents still in place.



Endoscopic ultrasound (EUS)-guided repositioning of a migrated metal stent: a 0.035-inch guidewire is passed through the migrated stent via a 19G flexible EUS aspiration needle and the transmural tract is enlarged by balloon dilation; the stent is successfully repositioned using foreign body forceps and a new longer stent is implanted inside the original; finally a drainage tube is inserted into the fluid collection.

Endoscopic ultrasound (EUS)-guided hepaticogastrostomy with a fully covered metal stent is an option for malignant biliary obstruction after a failed endoscopic retrograde cholangiopancreatography (ERCP) [1–3]; however, migration of the stent can be a fatal complication [3,

4]. We report a case in which a migrated stent was successfully reset using a foreign body forceps.

A 73-year-old woman developed abdominal pain and fever on the third day after EUS-guided hepaticogastrostomy with a metal stent (WallFlex Biliary RX, fully

covered stent system; Boston Scientific, Galway, Ireland). A computed tomography (CT) scan showed that stent migration had occurred (▶ Fig. 1 a, ▶ Fig. 1 b, ▶ Fig. 1 c) and an abdominal fluid collection had developed in the omental bursa (▶ Fig. 1 d).

We performed a puncture with a 19G flexible EUS aspiration needle (Expect; Boston Scientific, Menomonie, Wisconsin, USA) and inserted a 0.035-inch guidewire (METII-35-480 Tracer Metro Direct Wire Guide; Cook Medical, Limerick, Ireland) through the migrated stent, before enlarging the transmural tract by balloon dilation (Balloon dilation catheter; Changzhou JiuHong Medical Instrument Company Limited, Changzhou, China). We then successfully reset the stent using a foreign body forceps (Rat tooth forceps; Shanghai Alton Medical Instrument Company Limited, Shanghai, China), implanted a new longer stent (10 mm × 80 mm) inside the original one, and inserted a drainage tube (Liguory nasal biliary drainage catheter; Cook Medical) into the abdominal fluid collection (▶ **Video 1**). The patient was discharged from the hospital 4 days later. The stents functioned well for the following 2 months (▶ **Fig. 2**). This case illustrates that the omental bursa is an appropriate anastomotic choice for endoscopic operations. The abdominal fluid collection and migrated stent were restricted to the omental bursa, which

thereby reduced the risk of serious consequences and facilitated endoscopic treatment. Therefore, we should learn to find the omental bursa by recognizing important ligaments during EUS [5].

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