Emergency endoscopic exploration of a pancreatic pseudocyst to retrieve a migrated pigtail stent

Endoscopic ultrasound (EUS)-guided drainage of pancreatic pseudocyst using double-pigtail plastic stents is a well-established technique with a high success rate (95% – 100%). Early adverse events, namely bleeding and perforation, occur in up to 5% of the procedure [1 – 3].

A 38-year-old woman with a history of alcohol abuse was admitted to hospital because of dysphagia, abdominal pain, and vomiting. Computed tomography (CT) scan showed an encapsulated pancreatic fluid collection, and therefore EUS-guided drainage was performed. EUS-guided access to the collection was achieved with a 19-gauge needle (▶ Fig. 1) and a first guidewire was inserted. A cystotome was used, followed by hydrostatic dilation up to 8 mm. After insertion of a second guidewire, a double-pigtail 7-Fr, 5-cm plastic stent was delivered, but immediately after deployment the stent spontaneously migrated inside the collection (▶ Fig. 2). Blind retrieval was attempted without success with both foreign-body forceps and Dormia basket (▶ Fig. 3). Therefore a lumen-apposing metal stent (LAMS) was then deployed (▶ Fig. 4), and a slim gastroscope was advanced inside the pseudocyst (▶ Fig. 5). Exploration of the cavity allowed location of the migrated pigtail stent and retrieval using a pediatric biopsy forceps (▶ Video 1). Finally, a duodenoscope was used to remove the LAMS and to insert two 10-Fr double-pigtail plastic stents (▶ Fig. 6).

Inadvertent plastic stent migration inside a cavity is an adverse event that may be difficult to manage. Massive dilation of the tract is not recommended as first-line treatment because of the risk of perforation. Deployment of a LAMS seems a safe and effective option for guaranteeing sustained access to the cavity and allowing the use of a slim endoscope to explore the cavity. In our patient the pseudocyst was not infected; therefore we decided to remove the metal stent in order to allow an early oral diet and reduce the risk of superinfection caused by food stasis. Nonetheless, use of a LAMS might prove very useful in the management of adverse events related to drainage of pseudocysts.

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Competing interests

None

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VIDEO 1

▶ Video 1: Endoscopic pseudocyst exploration using a slim gastroscope through a lumen-apposing metal stent (LAMS): fluid aspiration, visualization of migrated double-pigtail stent, and its retrieval using a pediatric biopsy forceps.
Fig. 2  
(a) Double guidewires inside the pseudocyst.  
(b) Deployment of 5-cm 7-Fr double-pigtail plastic stent.  
(c) Immediately, the double-pigtail stent spontaneously migrated inside the cavity.

Fig. 3  
Attempts at blind retrieval of the migrated double-pigtail stent, using:  
(a) foreign-body forceps, and  
(b) a Dormia basket.

Fig. 4  
(a, b) Deployment of a lumen-apposing metal stent (LAMS) to allow sustained access to the cavity of the pancreatic pseudocyst.

Fig. 5  
A gastroscope was advanced through the lumen-apposing metal stent (LAMS) into the pseudocyst cavity.

Fig. 6  
Insertion of two 10-Fr, 5-cm double-pigtail plastic stents to drain the pancreatic pseudocyst.
References


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