Endoscopic management of stent displacement after pancreatic pseudocyst drainage

A 50-year-old man who had experienced acute alcoholic pancreatitis 2 years earlier presented with abdominal pain. An abdominal computed tomography (CT) scan revealed a pseudocyst, 16×8 cm in size, in the pancreatic tail (► **Fig. 1**). After multidisciplinary discussion, the patient was referred for endoscopic pseudocyst drainage.

Transgastric puncture of the pseudocyst was performed using a 19-gauge fine-needle aspiration needle, under endoscopic ultrasound (EUS) guidance. A 0.035-inch guidewire was advanced through the needle and the tract was dilated to 6 mm. A fully covered double-flanged metal stent (40×14 mm) was then deployed across the tract under endoscopic, EUS, and fluoroscopic guidance. The deployment was complicated by complete intracystic migration of the stent. We decided to place a fully covered biliary metal stent (60×10 mm) in an attempt to save the performed cystogastrostomy, and planned to retrieve the migrated stent at a later time. The patient was discharged with no symptoms. The patient was readmitted to our department 1 week later with fever and upper abdominal pain. Abdominal CT scan showed complete migration of the two stents into the pseudocyst cavity (12×6 cm) (► **Fig. 2**).

Under endoscopic, EUS, and fluoroscopic guidance, we placed another fully covered double-flanged metal stent (40×14 mm) through the patent cystogastrostomy (► **Fig. 3**). The two intracystic migrated stents were then removed through the third stent using a foreign body forceps. Effective drainage of the pseudocyst was observed and the patient became asymptomatic (► **Video 1**). At follow-up 1 month later, after an abdominal CT scan showed complete resolution of the pseudocyst (► **Fig. 4**), the stent was removed endoscopically (► **Fig. 5**).

► **Video 1** Endoscopic management of stent displacement after pancreatic pseudocyst drainage. 1) View of the intragastric portion of double-flanged metal stent. 2) Access to the cystic cavity through the double-flanged metal stent. 3) View of the two intracystic migrated stents. 4) Removal of the biliary and double-flanged metal stents.

► **Fig. 1** Abdominal computed tomography scan showing a well-defined cystic lesion (arrow), 16×8 cm in diameter, in the tail of the pancreas.

► **Fig. 2** Abdominal computed tomography scan in axial view showing complete migration of the first two stents into the pseudocyst cavity.

► **Fig. 3** Fluoroscopic image showing the third stent through the cystogastrostomy and the first two stents in the pseudocyst cavity.

► **Fig. 4** Abdominal computed tomography scan. **a** Coronal view, showing a correctly positioned fully covered double-flanged metal stent. **b** Axial view, showing complete resolution of the pancreatic pseudocyst.

► **Fig. 5** Endoscopy image showing collapsed perigastric cavity consistent with complete resolution of the pseudocyst.

Intracystic stent migration is a rare (<1%) complication of endoscopic drainage. It seems to be more frequent in transgastric drainage of pseudocysts of the pancreatic tail owing to variable luminal compression during the creation of cystogastrostomy [1].

We propose an alternative endoscopic method to solve intracystic stent migration, avoiding surgery [2].

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Competing interests

None

The authors

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