PICTURES IN DIGESTIVE PATHOLOGY

Double endosonography-guided transgastric and transduodenal drainage of infected pancreatic-fluid collections using metallic stents

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INTRODUCTION

The use of self-expanding metallic stents (SEMSs) in draining PFC has been reported in small case series (1,2). The practice of more than one transluminal drainage is rarely described (3,4).

CASE REPORT

A 34-year-old male was referred to our hospital for drainage of symptomatic pancreatic fluid collections (PFCs) secondary to an acute pancreatitis. He was affected by gastro-duodenal and biliary obstruction. CT scan images revealed 1 perigastric pseudocyst (well-defined wall, without necrosis content, 70 x 120 mm) and 1 periduodenal walled-off pancreatic necrosis (WOPN) (thickened wall, partially liquefied collection containing solid content, 80 x 90 mm).

Both PFC were accessed under endoscopic ultrasound (EUS)-guidance with a 6 Fr-cystotom and dilation tract using a 10 mm balloon (Fig. 1). First, the pseudocyst was drained transgastrically with a fully covered SEMS with bilateral anchor

Fig. 1. EUS image of the walled-off pancreatic necrosis located in the end of the pancreas.

Fig. 2. Endoscopy view through the AXIOS stent showing a significant resolution of the lesion after the spontaneous drainage of 800 ml of turbid fluid.

Fig. 3. CT scan coronal-sagittal oblique view (A) and 3-dimensional reconstruction (B) after the second drainage including both SEMS in the same plane: A cytogastrostomy (with a diabolo-shaped SEMS) and a cystoduodenostomy (with FCSEMS plus a coaxial plastic pigtail stent).

Fig. 4. Endoscopic necrosectomy of an infected walled-off pancreatic necrosis performed 6 days after a single transmural drainage (A). This maneuver allowed the extraction of non-adherent solid components of the infected cavity (B), improving patient symptoms.

flanges (AXIOS™, 10 x 15 mm; Xlumena, Mountain View, CA) and 800 ml of turbid fluid was aspirated (Fig. 2). Five days later, a WOPN was drained under EUS-guidance via transduodenal and a 10 x 40 mm fully covered SEMS (WallFlex biliary Rx, Boston Scientific, Natick, MA) plus a coaxial 10 Fr x 5 cm, double-pigtail stent to prevent migration were delivered and a purulent fluid was drained.

At day 6, abdominal pain and duodenal obstruction were persistent and a CT scan showed total resolution of the perigastric PFC and a decrease in size of the WOPN by < 30 % with presence of necrotic contents (Fig. 3). A necrosectomy was performed delivering a new specific SEMS (Yo-Yo stent, 10 x 10 mm, Niti-S; TaewoongMedical, Seoul, Korea) to keep open the duodenostomy (Fig. 4).

Patient symptoms improved, with a significant resolution of the WOPN in a CT scan 15 days later. At 3 weeks follow-up, complete lesion resolution was revealed in CT scan images and all stents were removed.

DISCUSSION

The practice of more than one transmural drainage with SEMSs is effective for the treatment of infected PFC. The use of diabolo-shaped SEMSs improved the overall management.

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