CASE REPORT

Novel Use of a Self-Expandable Metal Stent with an Anti-Migration System for Palliative Drainage of a Pancreatic Cystic Neoplasm

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ABSTRACT

Context There is scanty data on endoscopic palliative management of pancreatic cystic lesions that cause gastric outlet obstruction (GOO). This is the first case report that illustrates the use of a covered self-expandable metal stent (CSEMS) with an anti-migration system in the management of a symptomatic neoplastic cystic pancreatic lesion. Case report A 92-year-old Chinese female presented with partial GOO for 3 months. Examination revealed a non-tender epigastric mass with moderate abdominal distension. Esophagogastroduodenoscopy (EGD) showed a significant bulge at the posterior wall of the gastric antrum and food residue in the stomach. A CT scan of the abdomen showed a large pancreatic tail cystic lesion. Endoscopic ultrasound (EUS) showed a clear, non-septated cystic lesion measuring 9.7 × 10 cm arising from the pancreatic tail. Analysis of the aspirate revealed the following: Amylase: 3200 units/L, CEA: 411 ng/mL, CA19-9 812 U/mL and no malignancy. A NiTi-S™ Biliary Stent (NAGI™) was used for a cystogastrostomy. This procedure was complicated by a self-limiting intra-abdominal leak, stent migration and bleeding from a splenic artery pseudoaneurysm which was arrested with coil embolization. She progressed well after that with significant symptom improvement and no further complications. Conclusion This is the first case of a CSEMS with an anti-migration system that was used for decompression of a pancreatic cystic neoplasm (PCN). Novel use of this stent is a viable option as palliative management of a PCN in those not fit for surgery but caution needs to be exercised as there can be significant complications.

INTRODUCTION

Covered self-expandable metal stents (CSEMS) with an anti-migration system are increasingly used in the drainage of pseudocysts and pancreatic necrosectomy as they have the advantage of allowing better drainage in view of their large diameter and reduced migration rate due to their acute angled flare ends. However, there have been no cases of their use as a permanent, palliative treatment for non-operable pancreatic cystic neoplasms (PCN). Here we report a case of an intraductal papillary mucinous neoplasm (IPMN) that was successfully managed with such a stent and discuss the complications and issues that arose.

CASE REPORT

Madam WFE, a 92-year-old Chinese female presented in March 2013 with a three month history of upper abdominal discomfort, early satiety and weight loss of 7 kg. Her past medical history includes hypertension and a previous transient ischemic attack but there was no history suggestive of acute or chronic pancreatitis. Abdominal examination revealed a vague, non-tender epigastric mass with moderate abdominal distension. Her blood parameters and tumor markers were normal. CT scan of the abdomen showed a large cystic lesion in the tail of pancreas with no obvious communication with the main pancreatic duct and no features of malignancy (Figure 1). Esophagogastroduodenoscopy (EGD) revealed normal gastric mucosa with a significant bulge at the posterior wall of the gastric antrum. She was diagnosed as having a pancreatic cystic neoplasm (PCN) with partial gastric outlet obstruction (GOO). In view of her age and comorbidities, she was planned for an EUS-guided pancreatic cystic neoplasm (EUS-PCN) drainage as palliation for the GOO. However, it was felt that the standard pseudocyst drainage technique of using multiple plastic stents was unlikely to be of benefit as the fluid collection would re-accumulate as long as the tumor remained. Therefore, the decision was made to insert a covered self-expandable metal stent (CSEMS) with an anti-migration system.

PROCEDURE

The procedure was done under midazolam infusion by an anesthetist. EUS was performed with a curved linear array echoendoscope (GF-UCT 180 Olympus America Inc. Centre Valley, PA, USA) and Aloka 5 system (Olympus America Inc. Centre Valley, PA, USA). A large, clear and non-septated cystic lesion measuring 9.7 × 10 cm arising from the pancreatic tail was identified. There was no obvious connection to the main pancreatic duct or features