Massive pneumoperitoneum during endoscopic ultrasound-guided drainage of a pancreatic cyst lesion, treated with an enteral self-expanding metal stent and paracentesis

A 54-year-old patient with a supposed 9-cm pseudocyst located in the pancreatic tail was referred to our unit for endoscopic ultrasound (EUS)-guided transmural drainage (Fig. 1). The fluoroscopic image showed the immediate creation of a pneumoperitoneum when the cystotome was used, because the cystic lesion was not adherent to the gastric wall (Fig. 2a). First, we attempted to seal the ostomy (or iatrogenic perforation), with the purpose of preventing leakage of fluids to the peritoneal cavity, by using a ‘diabolo’-shaped self-expanding metal stent (SEMS) (AXIOS 10mm×10 mm; Xlumena, Mountain View, California, USA), without success (Fig. 2b). Finally, a successful rescue maneuver was done in which a fully covered SEMS (60mm×16 mm, Hanaro; MI-Tech, Seoul, Korea) was delivered coaxially with the first and migrated stent (Fig. 3a, b). Computed tomography (CT) showed a sealed perforation without leakage of fluid, and a massive pneumoperitoneum (Fig. 4, Video 1).

The patient had a favorable outcome from decompression paracentesis. The cystic fluid analysis showed high carcinoembryonic antigen (CEA) levels, identifying the lesion as a cystic tumor. To date, 1 year later, the patient is well and awaiting elective surgical resection.

Endoscopic management is now considered to be the first-line therapy for pancreatic fluid collections. With improvement of the available equipment and development of new metallic stents, EUS transmural drainage techniques have become easier and less time-consuming.

Even so, before drainage, evaluation of the lesion is necessary to rule out intervening vessels, to determine the adherence of the lesion, and to confirm that the nature of the lesion is other than inflammatory (i.e., a cystic tumor). The present report emphasizes the point that excellent pre-assessment is essential to avoid the mistake of confusing a cystic neoplasm with a pseudocyst [1–3].
In the case of massive pneumoperitoneum, the previously described rescue technique, of delivering a long enteral FC-SEMS and performing an emergency paracentesis, can be helpful [4,5].

Endoscopy_UCTN_Code_CPL_1AL_2AD

Competing interests: None

Claudia Consiglieri1, Joan B. Gornals1, Carlos Huertas1, Zoilo Madrazo2, Carme Loras1
1 Endoscopy Unit, Department of Digestive Diseases, Hospital Universitari de Bellvitge-IDIBELL, Barcelona, Spain
2 Department of Surgery, Hospital Universitari de Bellvitge-IDIBELL, Barcelona, Spain

References
1 Ahmad NA, Kochman ML, Brensinger C et al. Interobserver agreement among endosonographers for the diagnosis of neoplastic versus non-neoplastic pancreatic cystic lesions. Gastrointest Endosc 2003; 58: 59–64

Bibliography
DOI http://dx.doi.org/10.1055/s-0034-1377222
Endoscopy 2014; 46: E330–E331
© Georg Thieme Verlag KG Stuttgart · New York
ISSN 0013-726X

Corresponding author
Joan B. Gornals, MD, PhD
Endoscopy Unit, Department of Digestive Diseases
Hospital Universitari de Bellvitge-IDIBELL
(Bellvitge Biomedical Research Institute)
Feixa Llarga s/n
08907 L’Hospitalet de Llobregat
Barcelona
Spain
Fax: +34-93-2607681
jgornals@bellvitgehospital.cat

Fig. 3 a Endoscopic view through the stent of the perforation, and a catheter balloon. b Fluoroscopic image of the stent-in-stent rescue maneuver: a longer enteral fully covered self-expanding metal stent (FC-SEMS) was delivered coaxially with the first (and migrated) stent.

Fig. 4 Emergency computed tomography (CT) showed that the perforation was well sealed without leakage of fluid, and a massive pneumoperitoneum.