External pancreatic fistula treated by endoscopic ultrasound-guided drainage with a novel lumen-apposing metal stent mounted on a cautery-tipped delivery system

One of the most common causes of external pancreatic fistula is the iatrogenic manipulation of a complex pancreatic fluid collection concomitantly associated with a disconnected pancreatic duct [1,2]. This situation can lead to the development of a high output (up to 400 mL/d) external pancreatic fistula that is difficult to manage and sometimes requires surgery [3]. In 2012, a 40-year-old woman underwent laparoscopic cholecystectomy with a hepaticojejunostomy and a Roux-en-Y anastomosis for a congenital Todani’s type IV common bile duct cyst. Postoperative pancreatitis resulted in the development of a complex pancreatic fluid collection in the pancreatic head, which was drained percutaneously. Subsequently, an external pancreatic fistula formed with an output of 200 mL/d. In 2014, the patient was referred to us for further evaluation. Endoscopic retrograde cholangiopancreatography (ERCP) showed a normal main pancreatic duct that lacked a clear communication with the collection (Fig. 1). The injection of contrast through the percutaneous catheter revealed the presence of a 4-cm fluid collection (Fig. 2). Endoscopic ultrasound (EUS)-guided drainage with the placement of plastic stents was planned. At EUS, the collection was accessed from the duodenal bulb with a 19-gauge needle, after which a 0.035-inch guidewire was pushed away by the guidewire, and major vessels were interposed (Video 1). Based on our previous experience, we decided to replace the cystotome with a novel cautery-tipped stent delivery system that allows the single-step EUS-guided placement of a lumen-apposing fully covered metal stent (Hot AXIOS System; Xlumena, Mountain View, California, USA) [4]. The lesion was directly punctured and entered with the system, and an 8 × 8-mm lumen-apposing fully covered metal stent was delivered under complete EUS guidance (Fig. 3, Video 1). The output significantly dropped the following day, allowing removal of the external catheter 2 days after the procedure. The patient was discharged and remains well 3 months later, without any symptoms.

Competing interests: Alberto Larghi is a consultant for xlumena.

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References

Video 1
Single-step endoscopic ultrasound-guided placement of a lumen-apposing fully covered metal stent (Hot AXIOS System) under endoscopic ultrasound guidance to drain an external pancreatic fistula.

Bibliography
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