Endoscopic ultrasound-guided drainage of a pancreatic fluid collection using a novel lumen-apposing metal stent complicated by stent occlusion

Endoscopic ultrasound (EUS)-guided transenteric drainage of pancreatic fluid collections (PFCs) is a well-established procedure. Recently a novel lumen-apposing, fully covered self-expanding metal stent (SEMS) has been developed to overcome the limitations of conventional SEMS for EUS-guided transenteric interventions [1–3].

A 71-year-old woman with jaundice due to a pancreatic head adenocarcinoma was treated by endoscopic retrograde cholangiopancreatography (ERCP) and placement of a fully covered self-expanding metal stent (FCSEMS). The patient developed moderately severe acute pancreatitis, complicated by a 12-cm necrotic infected fluid collection in the pancreatic body, which was not controlled by antibiotic therapy and intravenous hydration. EUS-guided drainage was performed using a 10-Fr cystotome, followed by placement of a 0.035-inch guidewire. The cystotome was removed and a fully covered self-expanding metal stent (FCSEMS) was passed over the guidewire, and positioned and deployed under fluoroscopic and endoscopic guidance.

The pancreatic fluid collection was punctured under endoscopic ultrasound (EUS) guidance using a 10-Fr cystotome, followed by placement of a 0.035-inch guidewire. The cystotome was removed and a fully covered self-expanding metal stent (FCSEMS) was passed over the guidewire, and positioned and deployed under fluoroscopic and endoscopic guidance.

A gastroscopy was advanced into the cavity of the pancreatic fluid collection, and necrotic tissue was removed using a basket. Irrigation was carried out using physiologic saline solution.

EUS-guided drainage of PFCs using this new lumen-apposing FCSEMS is technically feasible. In this case the clinical success of drainage was limited by early stent occlusion due to impacted necrotic tissue, which led to the patient requiring a second hospital admission and further treatment. Fortunately the large stent diameter allowed necrosectomy to be performed and the anchoring flanges prevented stent dislodgement during the procedure. Further data are needed to evaluate the possible role of a nasocystic tube in preventing stent occlusion, as has been reported for other models of lumen-apposing FCSEMS [4,5], in patients with a complicated PFC.

Competing interests: None

References

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