A new method for endoscopic drainage of pancreatic necrosis through a gastrostomy site using an endosponge

Pancreatic fluid collections (PFCs) with necrosis can be very challenging to manage. The two main factors that impede adequate endoscopic drainage of many complex PFCs are the presence of thick fluid and debris, and their large size. Herein, we present a novel technique to manage complex PFCs endoscopically using an endosponge.

A 76-year-old woman with severe acute necrotizing pancreatitis due to gallstones required prolonged treatment in the intensive care unit. A 15×20-cm necrotic collection, extending into the paracolic gutters, failed to completely resolve using a multigateway approach of combined percutaneous drainage and endoscopic transmural transgastric drainage. Therefore, a repeat drainage attempt using a novel endoscopic drainage technique was employed (**Video 1**).

Video 1

Use of an endosponge to manage complex pancreatic fluid collections.

First, the transgastric access was dilated using a 15-mm balloon (CRE; Boston Scientific Corp., Natick, Massachusetts, United States). The floppy inner overtube (US Endoscopy, Mentor, Ohio, United States) was loaded onto the scope and then advanced into the collection. An endosponge (Endo-SPONGE; B. Braun Melsungen AG, Melsungen, Germany) was then pushed through the overtube into the necrotic cavity. Due to the short length of the endosponge connecting catheter, a transnasal placement was impossible. Thus, the tip of the catheter was pushed into the 20-Fr gastrostomy and then pulled outside of the stomach. The catheter was then connected to the G-tube, which is similar to the jejunal port of a percutaneous endoscopic gastrostomy with jejunal extension tube (PEG-J). It was then straightforward to connect the suctioning endosponge catheter to a Redon high-vacuum bottle (PFM Medical AG, Köln, Germany) using a Luer lock.

The sponge was exchanged every 3 – 5 days because the cavity became smaller and the granulation tissue migrated into the sponge. A total of three exchanges resulted in adequate resolution of the collection.

The main mechanism of action of the endosponge is resorption of inflammatory fluid with induction of granulation tissue, eventually resulting in healing and fibrosis. The present case highlights two aspects: 1) a new technique to deliver the endosponge into the necrotic pancreatic cavity, and 2) a new method to drain complex PFCs.

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Bibliography

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