Increasing evidence supports endoscopic transluminal retroperitoneal debride-
ment for the management of walled-off pancreatic necrosis [1, 2]. However, this approach is not feasible for cavities that do not approximate the gastrointestinal lumen. Yamamoto et al. recently demonstrated a method of percutaneous endo-
scopic necrosectomy (PEN) requiring 11 procedures [3]. We demonstrate an alter-
native, more efficient method using PEN plus daily irrigation with hydrogen perox-
ide to efficiently manage a retroperitoneal abscess.

A 30-year-old woman was referred to our institution for management of a 15×8 cm right retroperitoneal abscess extending from the subhepatic space into the pelvis which had failed to improve after in-
sertion of two percutaneous drains (Fig. 1). Six weeks earlier she had suf-
f ered a type I duodenal perforation (lateral duodenal wall) during attempted endo-
scopic retrograde cholangiopancreatogra-
phy (ERCP) performed for choledocholithiasis. Because biliary cannulation failed, the patient underwent percutaneous transhepatic biliary drainage. The abscess was not visualized on upper endoscopic ultrasonography and hence the decision was made to proceed with PEN. Under fluoroscopic guidance, a guidewire was inserted through the cau-
dal drain and exchanged for an esopha-
egal 18×103mm fully covered self-ex-
pandable metallic stent (Fig. 2). The stent was placed into the abscess and se-
cured at three sites with two 1–0 nonab-

![Fig. 1](image1.png) a Coronal CT scan demonstrating the rostral percutaneous drain (arrow) within the abscess. b Sagittal CT scan demonstrating the caudal percutaneous drain (arrow) within the abscess.

![Fig. 2](image2.png) Sagittal CT scan depicting the percutaneous deployment of the fully covered self-expandable metallic stent (FCSEMS) within the abscess.

![Fig. 3](image3.png) The stoma bag placed over the FCSEMS (arrow) with free drain-
age of necrotic mate-
rial.
sorbable sutures and covered with a stoma bag (Fig. 3). The rostral drain was noted to be occluded and was exchanged for a 16-Fr balloon-type gastrostomy tube.

The following day, under minimal sedation, PEN was performed with an adult gastroscope passed through the stent using CO2 insufflation. Copious amounts of solid and purulent necrotic debris were extracted using retrieval forceps, snares, baskets, and Roth nets (Fig. 4, Video 1). Between procedures, 300mL hydrogen peroxide (0.3%) was injected through the gastrostomy tube twice daily to chemically debride and lavage the necrosis. Only four procedures were required over 8 days to entirely clear the necrotic debris (Fig. 5). The stent and gastrostomy tube were removed and the patient was discharged home to return in 4 weeks for successful ERCP and stone extraction.

We demonstrate a novel method of managing a retroperitoneal abscess not amenable to transluminal drainage. PEN allows unwell patients to undergo multiple procedures using only minimal sedation. Additionally, twice daily irrigation with hydrogen peroxide as a chemically debriding agent appears to be a safe and effective method to expedite resolution.

Endoscopy_UCTN_Code_TTT_1AS_2AC

Competing interests: Payal Saxena has received consulting fees from Boston Scientific and Olympus America and has received research support from Cook Medical. Mouen A. Khashab is a consultant for Boston Scientific and Olympus America and has received research support from Cook Medical.

All other authors have no relevant disclosures.