Endoscopic treatment of an infected retroperitoneal hematoma following endoscopic ultrasound-guided pseudocyst drainage

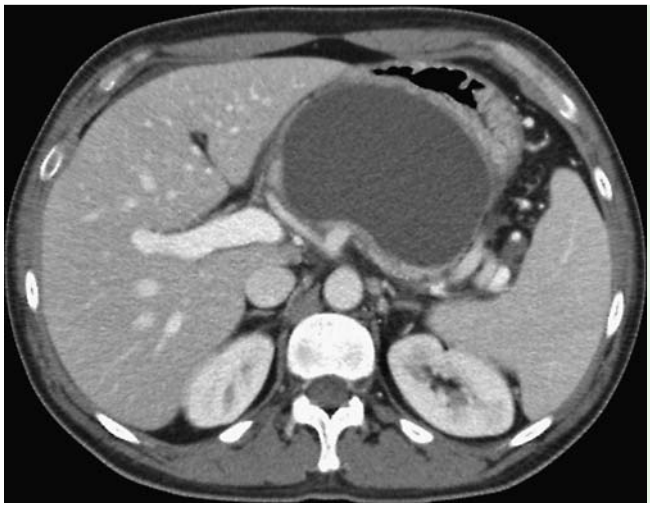

Fig. 1 Computed tomography (CT) scan showing a 10-cm pancreatic pseudocyst compressing the stomach.

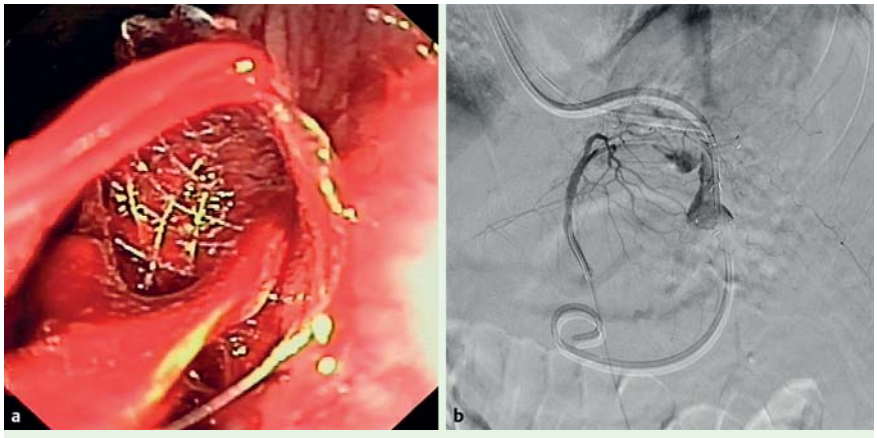

Fig. 2 **a** Metal stent across a gastrocystic fistula, with active bleeding. **b** Arteriogram showing active bleeding from a left gastric artery branch.

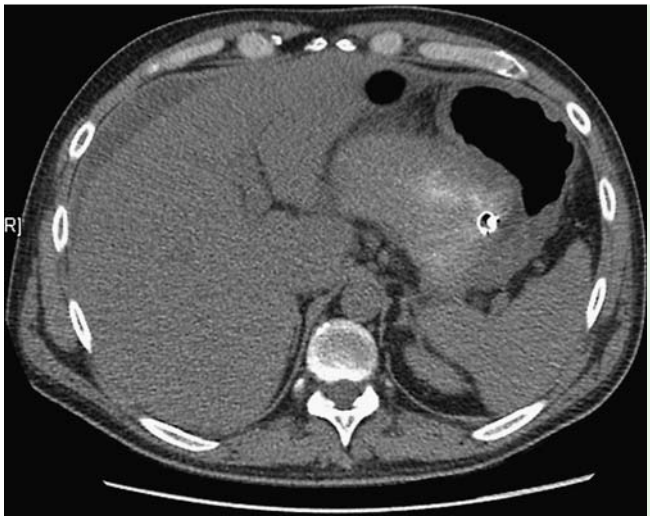

Fig. 3 Abdominal CT shows a large retroperitoneal hematoma.

A 32-year-old man with alcoholic pancreatitis presented with the complaint of abdominal pain and vomiting that necessitated parenteral feeding. Abdominal computed tomography (CT) scan showed a 10-cm pseudocyst in the pancreatic body (**Fig. 1**) [1]. In view of persisting symptoms and the pseudocyst size, he was referred for endoscopic ultrasound (EUS)-guided cystogastrostomy.

Echoendoscopy confirmed the presence of a large pancreatic cyst adherent to the stomach wall. Cystogastrostomy was complicated by spurting of blood from the gastric wall into the pseudocyst cavity. A metal stent was placed across the gastrocystic fistula with initial hemostasis. However, a few minutes later the patient developed hematemesis with a significant drop in hemoglobin. An arteriogram showed active bleeding from a left gastric artery branch (**Fig. 2**) and transcatheter embolization of this branch was carried out using metal coils. Repeat arteriogram 10 minutes later confirmed successful hemostasis.

Prophylactic antibiotics were started. However 5 days later the patient developed high grade fever, and abdominal CT showed a large retroperitoneal hematoma (**Fig. 3**). We decided to remove the infected clots by using the same technique as for endoscopic necrosectomy. After removal of the metal stent, a gastroscope was passed through the fistula into the retroperitoneal cavity. Blood clots were removed using a Roth Net (**Fig. 4**) and the cavity was washed with saline. A nasogastric tube was inserted into the cavity and 4-hourly saline lavage was applied through the tube. Another session of endoscopic clot removal was carried out 3 days later, and two double-pigtail catheters (10 Fr, 10 cm) were inserted into the cavity. CT carried out after the second endoscopy confirmed resolution of the hematoma (**Fig. 5**), with the patient becoming afebrile soon after that.

EUS-guided drainage is the preferred approach for management of pancreatic pseudocyst because of its lower morbidity rate compared with surgical and percutaneous approaches [2]. However, this procedure may be complicated by bleeding [3], and retroperitoneal hematomas arising after bleeding into cyst cavities may become infected. This is the first reported case of management of an infected retroperitoneal hematoma by endoscopic "clot-ectomy."

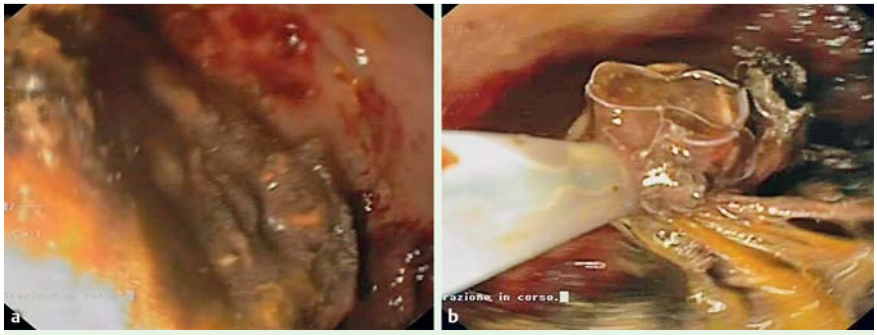

Fig. 4 **a** Infected retroperitoneal blood clots. **b** Endoscopic removal of blood clots using a Roth Net.

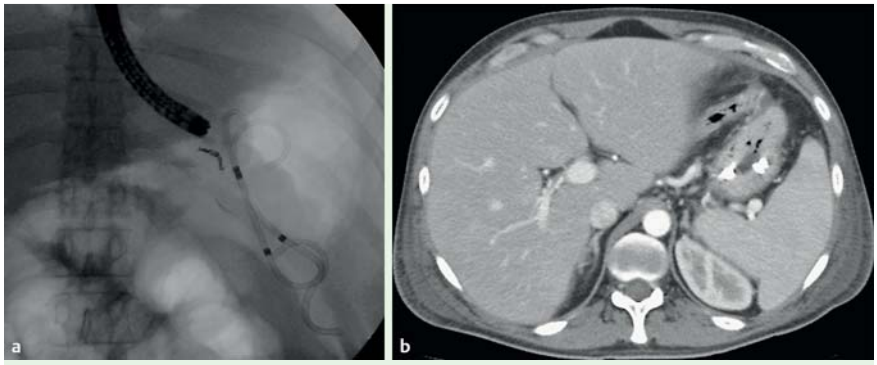

Fig. 5 **a** Double-pigtail catheters in the retroperitoneum shown on x-ray. **b** Resolution of the retroperitoneal hematoma is confirmed at CT.

Endoscopy_UCTN_Code_CPL_1AL_2AB

Competing interests: None

Ilaria Tarantino[1], Luca Barresi[1], Antonino Granata[1], Neville Azzopardi[2], Gabriele Curcio[1], Mario Traina[1]

[1] IsMeTT/UPMC – Gastroenterology, Palermo, Italy
[2] IsMeTT/UPMC – Gastroenterology and Endoscopy Unit, Palermo, Italy

References

1 *Banks PA*, *Bollen TL* et al. Classification of acute pancreatitis – 2012: revision of the Atlanta classification and definitions by international consensus. Gut 2013; 62: 102–111, Epub 2012 Oct 25
2 *Giovannini M*, *Pesenti C*, *Rolland AL* et al. Endoscopic ultrasound guided drainage of pancreatic pseudocysts or pancreatic abscesses using a therapeutic echoendoscope. Endoscopy 2001; 33: 473–477
3 *Varadarajulu S*, *Christein JD*, *Wilcox CM*. Frequency of complications during EUS-guided drainage of pancreatic fluid collections in 148 consecutive patients. J Gastroenterol Hepatol 2011; 26: 1504–1508

Bibliography

DOI http://dx.doi.org/10.1055/s-0033-1344869
Endoscopy 2013; 45: E395–E396

Stuttgart · New York
ISSN 0013-726X

Corresponding author

Ilaria Tarantino, MD
IsMeTT
UPMC – Gastroenterology
Via Tricomi 1
Palermo 90100
Italy
Fax: +39-91-6665340
itarantino@ismett.edu