

Pancreatic pseudocyst in the mediastinum

Przemysław Dyrła¹, Jerzy Gil¹, Stanisław Wojtuń¹, Michał Florek¹, Ewa Kasińska¹, Ryszard Zoń²

¹ Department of Gastroenterology, Military Institute of Medicine, Warsaw, Poland

² Department of Radiology, Military Institute of Medicine, Warsaw, Poland

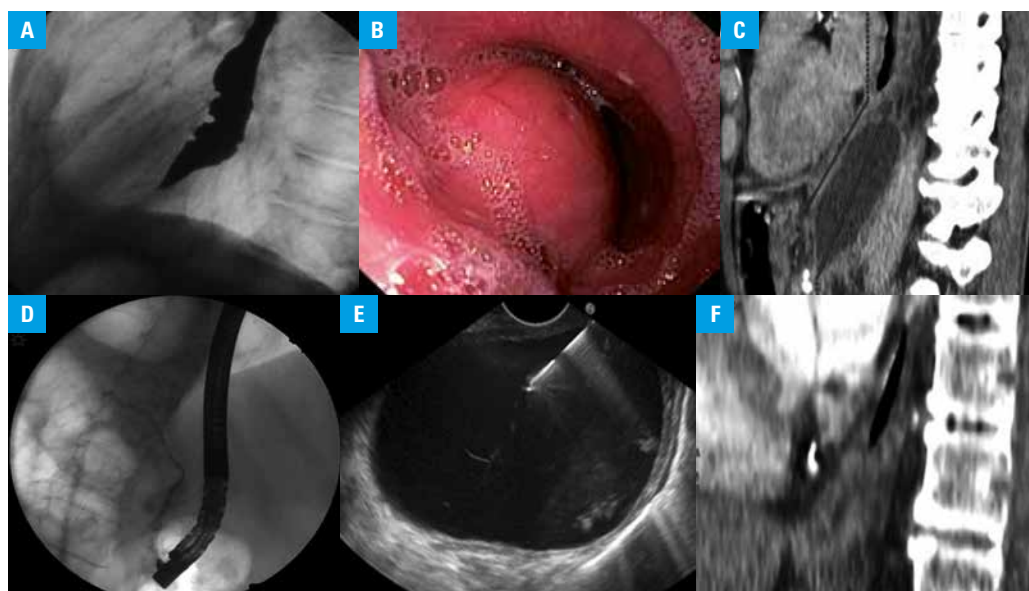


FIGURE 1 **A** – X-ray imaging of the esophagus with contrast water; **B** – compression of the distal esophagus by an extrinsic mass in endoscopy; **C** – computed tomography scan showing a cystic mass extending from the border of the pancreatic body and tail into the mediastinum; **D** – no communication between the pancreatic duct and the pseudocyst on endoscopic retrograde cholangiopancreatography; **E** – endosonography-guided drainage of the mediastinal pancreatic pseudocyst through the terminal esophagus; **F** – computed tomography scan without a cystic mass in the mediastinum

We present a case of a 61-year-old man with a history of pancreatitis, who presented at the emergency department with chest pain, vomiting, and dysphagia. His blood count, the levels of cardiac and liver enzymes and electrolytes, as well as the results of renal function tests were normal. An electrocardiogram revealed sinus rhythm without any changes of ischemia. Chest X-ray with contrast showed restriction in the distal esophagus without infiltration of the wall (**FIGURE 1A**). Endoscopy showed compression of the distal esophagus by an extrinsic mass (**FIGURE 1B**). Computed tomography (CT) scans of the back mediastinum revealed a pseudocyst extending from the abdomen to the chest through the hiatus of the esophagus (**FIGURE 1C**). Endoscopic retrograde cholangiopancreatography (ERCP) showed

normal ductal anatomy. There was no communication between the pancreatic duct and the pseudocyst (**FIGURE 1D**). Endosonography (EUS)-guided drainage of the mediastinal pancreatic pseudocyst was performed through the terminal esophagus using linear EUS. Two passes were made with a 19-gauge needle using a transesophageal approach, and 200 ml of serous amber fluid was removed (**FIGURE 1E**). High levels of amylase were observed in the fluid (15,774 U/l). Tumor markers were within normal ranges. A control CT scan did not confirm the cyst near gastroesophageal hernia, and there was no pathology in the back mediastinum (**FIGURE 1F**). Pancreatic pseudocysts are diagnosed accidentally in 20% of the patients and on autopsy in 24% of the patients.¹ A pseudocyst occurs in 7% to 15% of the patients with

Correspondence to:

Przemysław Dyrła, MD, PhD,
Wojskowy Instytut Medyczny, Klinika
Gastroenterologii, ul. Szaserów 128,
04-141 Warszawa 44,
Poland, phone: +48-22-681-80-61,
fax: +48-22-681-75-99,
e-mail: pdyrła@wim.mil.pl
Received: March 13, 2014.
Revision accepted: March 19, 2014.
Published online: March 21, 2014.
Conflict of interest: none declared.
Pol Arch Med Wewn. 2014;
124 (5): 270-271
Copyright by Medycyna Praktyczna,
Kraków 2014

acute pancreatitis and in 20% to 25% of those with chronic pancreatitis.² There have only been a few case reports in the medical literature about mediastinal extension of a pancreatic pseudocyst. An X-ray of the esophagus with barium swallow may be nondiagnostic but can also show pathology as in our case. We established the diagnosis on the basis of a CT scan showing a cystic mass extending from the pancreas into the mediastinum. The treatment options for this entity depend on the severity of symptoms, the size of the pseudocyst, the ductal anatomy, and availability of experienced surgeons. Open surgical drainage should be used only in patients in whom pancreatic necrosis, abscess, hemorrhage, or rupture of a pseudocyst occur.³ The available endoscopic internal drainage options are ERCP with transpapillary duct drainage combined with endoscopic stent placement or transmural drainage. ERCP with transpapillary stent placement can be used only when the mediastinal pseudocyst communicates with the pancreatic duct. The efficiency of EUS-guided drainage of pancreatic pseudocysts is estimated at 89% to 100%.⁴ In a review by Vosoghi et al.,² the success rate for surgical, percutaneous, non-EUS-guided, and EUS-guided transmural drainage was 100%, 84%, 90%, and 94%, respectively. Our case shows that EUS-guided transesophageal drainage is technically feasible and minimally invasive with minimal risk for the patient. EUS should be used in all interventional procedures in the mediastinum to minimize the incidence of vascular complications caused by close proximity to the aorta and the heart.⁵

REFERENCES

- 1 Penman ID, Lennon AM. EUS in the evaluation of pancreatic cysts. *Endosonography*. Hawes RH, Fockens P, Varadarajulu S. Philadelphia: Elsevier Saunders; 2011: 166-177.
- 2 Vosoghi M, Sial S, Garrett B, et al. EUS-guided pancreatic pseudocyst drainage: review and experience at Harbor UCLA Medical Center. *Medscape Gen Med*. 2002; 4: 2.
- 3 Bardia A, Stoikes N, Wilkinson NW. Mediastinal pancreatic pseudocyst with acute airway obstruction. *J Gastrointest Surg*. 2006; 10: 146-150.
- 4 Ahn JY, Seo DW, Eum J, et al. Single-step EUS-guided transmural drainage of pancreatic pseudocysts: analysis of technical feasibility, efficacy and safety. *Gut Liver*. 2010; 4: 524-529.
- 5 Trevino J, Christein J, Varadarajulu S. EUS-guided transesophageal drainage of peripancreatic fluid collections. *Gastrointest Endosc*. 2009; 70: 793-797.