CLINICAL IMAGE

Endoscopic treatment of a broken pancreatic stent

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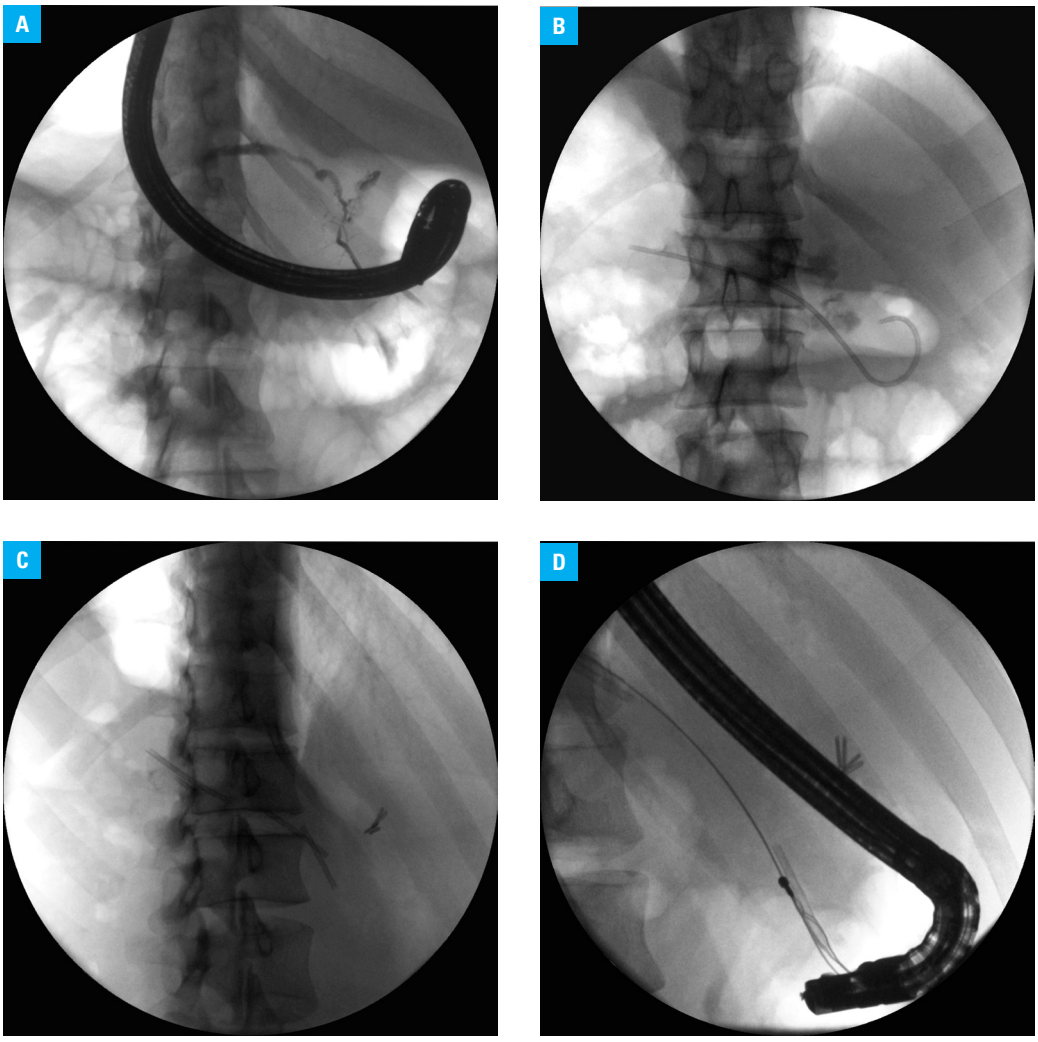
A 37-year-old man with chronic pancreatitis was admitted to the Department of Gastroenterology and Hepatology, Medical University of Gdańsk, Gdańsk, Poland, in March 2014 for follow-up endoscopy. In May 2013, the patient had started an endoscopic treatment of symptomatic peripancreatic necrosis. Transmural drainage was not performed owing to unfavorable local conditions (the distance between the lumen of the gastrointestinal tract and the cavity of the necrotic collection exceeded 1 cm on endoscopic ultrasonography). Endoscopic pancreatography was performed, which showed stenosis of the main pancreatic duct in the head of the pancreas and a fistula within the isthmus into the peripancreatic space (FIGURE 1A). After



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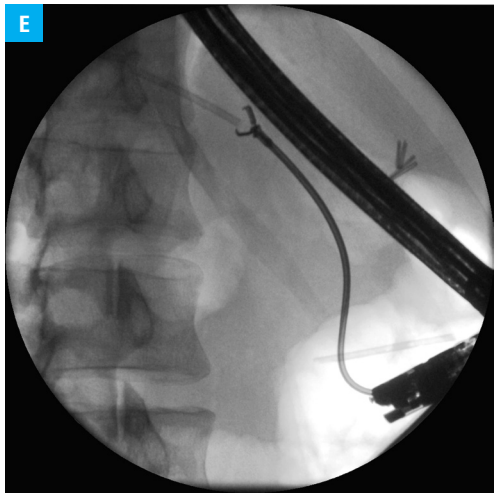
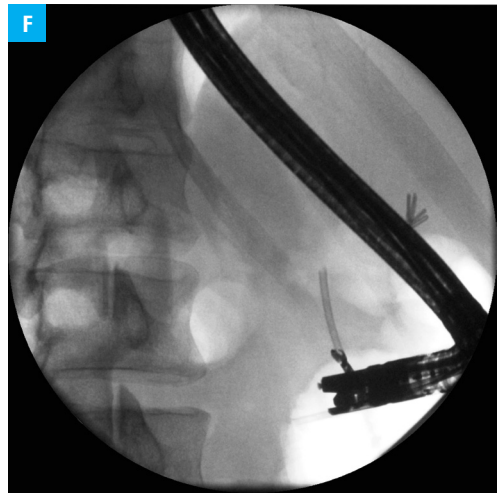
Received: June 5, 2014.
Revision accepted: June 11, 2014.
Published online: June 13, 2014.
Conflict of interest: none declared.
Pol Arch Med Wewn. 2014; 124 (7-8): 429-430





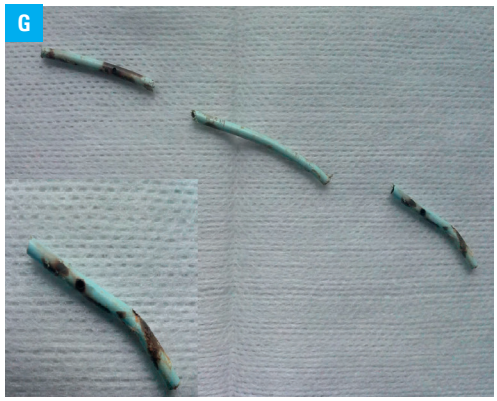


FIGURE 1 **A** – extravasation of contrast medium outside the main pancreatic duct (March, 2013); **B** – endoprosthesis inserted into the main pancreatic duct seals the place of extravasation (March, 2013); **C** – fragmented prosthesis within the main pancreatic duct (March, 2013); **D** – 1 fragment of the endoprosthesis was removed with the Dormia basket; **E**, **F** – the remaining 2 fragments were seized with rat-tooth forceps and removed; **G** – fragmented pancreatic endoprosthesis removed from the main pancreatic duct during endoscopic retrograde cholangiopancreatography (March, 2014)

mechanical dilation of the stenosis, a 7 French endoprosthesis (length, 12 cm) was inserted into the main pancreatic duct, thus stenting the site of a duct injury (FIGURE 1B). In March 2014, the patient was admitted for exchange of the pancreatic stent. Imaging studies demonstrated complete regression of the walled-off necrosis. The patient did not report any symptoms. Fluoroscopy performed during endoscopic retrograde cholangiopancreatography showed the fragmentation fracture of the stent endoprosthesis into 4 fragments (FIGURE 1C). Three parts were found within the main pancreatic duct and 1 within the bowel lumen. The major duodenal papilla was visualized in the descending duodenum, without a protruding stent. A catheter was inserted over a guide wire into the main pancreatic duct. After infusion of contrast medium, duct narrowing was observed within the head of the pancreas, and 3 endoprosthetic fragments were found within the duct above the stenosis. A high-pressure 6-mm balloon was used to dilate the pancreatic duct within the pancreas head. Next to the guide wire, the end of which was placed in the tail of the pancreas, a Dormia basket was inserted into the main pancreatic duct and used to capture and remove one of the fragments (FIGURE 1D). The remaining 2 fragments were seized with rat-tooth forceps (FIGURE 1EF) and also removed (FIGURE 1G). A 7 French endoprosthesis (length, 9 cm) was introduced into the main pancreatic duct.

Endoscopic treatment of the walled-off pancreatic necrosis has been shown to be highly effective.[1] In the present case, endoscopic transpapillary drainage allowed to completely remove the necrotic collection. Proximal pancreatic stent migration and fragmentation of the prosthesis are rare complications of pancreatic endotherapy. Endoscopic treatment is an effective method for the removal of the dislocated prosthesis.[2,3] Patients with this complication quite often remain asymptomatic. Even in the absence of symptoms, an attempt to remove the dislocated prosthesis or its fragments should be undertaken.[3] In our case, the combination of the 2 retrieval systems, the Dormia basket (FG-V422PR, Olympus, Japan) and rat-tooth forceps (FG-44NR-1, Olympus) allowed us to remove the prosthetic fragments from the main pancreatic duct.

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