

Endoscopic closure of a post-traumatic pancreatic fistula with interventional radiology techniques

A patient aged 54 years sustained predominantly abdominal, multiorgan trauma in a road traffic accident. A computed tomography (CT) scan showed rupture of the right hepatic lobe with a large amount of blood in the abdominal cavity. The patient underwent an emergency operation. Postoperatively there was leakage of the pancreatic contents (200–300 mL/24 h) and symptoms of acute pancreatitis. A follow-up CT scan revealed damaged pancreatic tissue at the border between the corpus and the tail (● Fig. 1). The pancreatic fistula was treated conservatively with total parenteral nutrition, octreotide, and antibiotics. Due to pus formation and transverse colon necrosis, four debridement procedures were carried out; the abscesses were drained and the transverse colon resected with formation of a descending colostomy [1,2]. After the inflammation was controlled and the pancreatic fistula was closed, enteral nutrition was initiated [3]. Octreotide withdrawal caused reappearance of the pancreatic fistula. After several laparotomy attempts, surgical closure of the fistula was deemed technically difficult. Therefore, a decision was made to close the fistula using an endoscopic approach. For this purpose, the large communication between the damaged pancreatic duct and the peritoneum was reduced by endoscopic retrograde cholangiopancreatography (ERCP) (● Fig. 2) [4,5]. With the use of interventional radiology techniques, a vascular coil was implanted into Wirsung's duct, just proximal to the site of the damage. The coil was additionally sealed with a tissue adhesive (● Fig. 3). Following this procedure, the pancreatic fistula, which had been persistent for several weeks, closed. The peripheral part of the pancreas did not cause any therapeutic difficulties. Placement of a vascular coil at the end of a torn Wirsung's duct causes increased pressure in this part of the duct and free flow of pancreatic juice into the duodenum is possible after sphincterotomy.

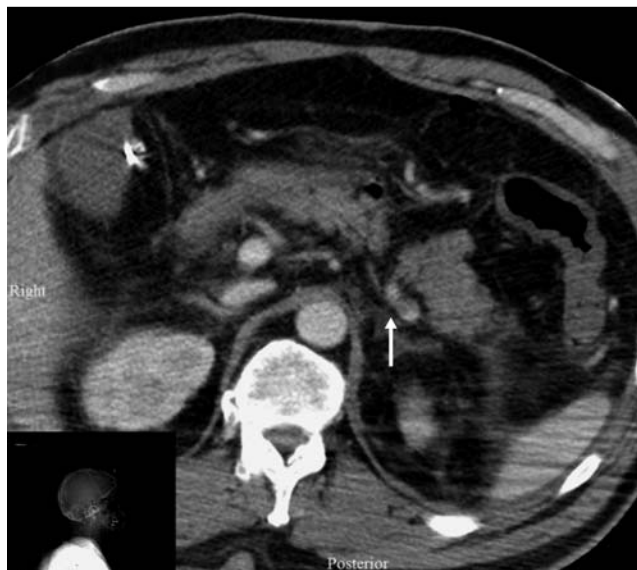


Fig. 1 Pancreatic damage at the border between the corpus and the tail.

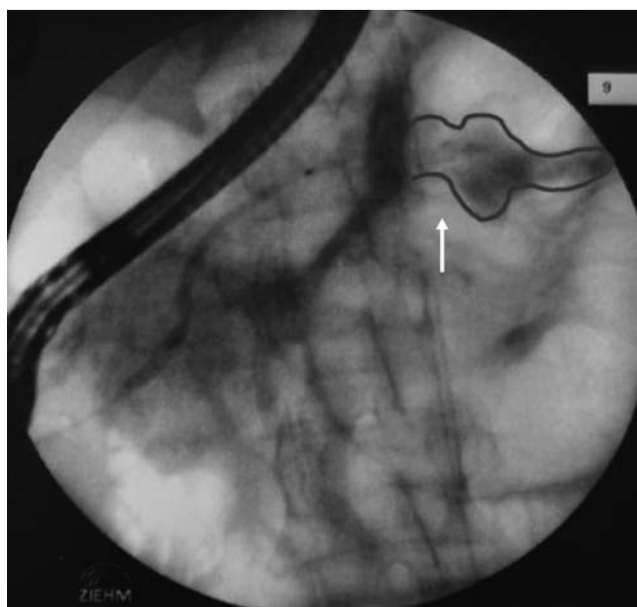


Fig. 2 The large opening between the damaged pancreatic duct and the peritoneum was reduced in size by endoscopic retrograde cholangiopancreatography (ERCP).

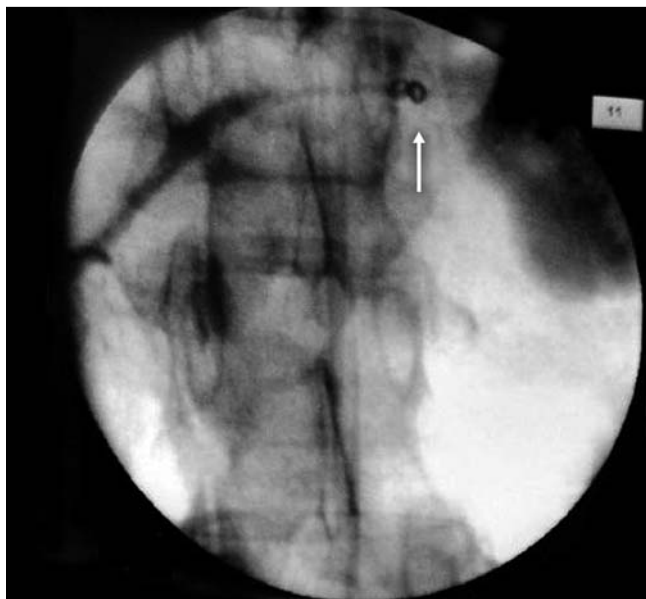


Fig. 3 Coil sealed with a tissue adhesive.

Competing interests: None

Endoscopy_UCTN_Code_TTT_1AR_2AG

T. Milek, P. Ciostek

Department of General and Vascular Surgery, Warsaw Medical University, Warsaw, Poland

References

- 1 Craig MH, Talton DS, Hauser CJ. Pancreatic injuries from blunt trauma. *Am Surg* 1995; 61 (Suppl. 2): 125–128
- 2 Farrell RJ, Krige JE, Bornman PC. Operative strategies in pancreatic trauma. *Br J Surg* 1996; 83 (Suppl. 7): 934–937
- 3 Mayer JM, Tomczak R, Rau B *et al*. Pancreatic injury in severe trauma: early diagnosis and

therapy improve the outcome. *Dig Surg* 2002; 19 (Suppl. 4): 291–297; discussion 297–299

4 Wind P, Tiet E, Cunningham C. Contribution of endoscopic retrograde pancreatography in management of complications following distal pancreatic trauma. *Am Surg* 1999; 65 (Suppl. 8): 777–783

5 Wolf A, Bernhardt J, Patrzyk M, Heidecke CD. The value of endoscopic diagnosis and the treatment of pancreas injuries following blunt abdominal trauma. *Surg Endosc* 2005; 19 (Suppl. 5): 665–669

Bibliography

DOI 10.1055/s-0030-1255896

Endoscopy 2010; 42: E356–E357

© Georg Thieme Verlag KG Stuttgart · New York · ISSN 0013-726X

Corresponding author

T. Milek

Department of General and Vascular Surgery
Warsaw Medical University
ul. Kondratowicza 8
03-242 Warsaw
Poland
Fax: +48-22-326-5899
Tomasz_Milek@wp.pl